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MADRAS.

Phys. sp.

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Jacob

PRESENTED
BY ORDER OF THE
RIGHT HONORABLE THE GOVERNOR IN COUNCIL,
AT MADRAS.

To

*The Royal Academy of Sciences
Munich*

MAGNETICAL OBSERVATIONS

MADE AT

THE HONORABLE EAST INDIA COMPANY'S

OBSERVATORY

AT

MADRAS,

UNDER THE SUPERINTENDENCE OF

W. S. JACOB, ESQ., F.R.A.S.,

ASTRONOMER TO THE HONORABLE COMPANY,

IN THE YEARS 1851—1855.

PUBLISHED BY ORDER OF

THE MADRAS GOVERNMENT.

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MAGNETICAL OBSERVATIONS

BY W. COX

THE HONORABLE EAST INDIA COMPANY'S

OBSERVATORY

MADRAS



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INTRODUCTION.

Hourly Magnetical and Meteorological Observations were first ordered at Madras by the Honorable East India Company upon the recommendation of the Royal Society, and were commenced in March 1841, under the direction of the late Major General (then Captain) S. O. E. Ludlow.

The original Magnetical Observatory was located in the grounds of the Old College, about a quarter of a mile eastward of the Astronomical Observatory and the instruments were recorded there until 1847 October 27th, when they were removed to the latter establishment and handed over to the future management of the Astronomer, Mr. T. G. Taylor. All the Magnetical registers and their partial reductions for the first five years, 1841 to 1845, were taken by Captain Ludlow to England, with a view to their being completed and published by him. This however was never accomplished. The papers were lost sight of for many years, but were ultimately returned to the care of the head native assistant, R. Ramanajooloo Naidoo, who had made by far the largest share of the observations and probably all the calculations of the partial results. Ramanajooloo completed the reductions for the early years privately, and before retiring on pension at the end of 1871, handed them over to the Government Astronomer, to whom they should have been sent when returned, instead of to one of his assistants. The papers appear to have been prepared with all the accuracy and neatness which distinguished Ramanajooloo's work in general, but will of course require careful revision before they can be considered ready for publication. Ramanajooloo was a rare instance of a native who delighted in his scientific occupation more for its own sake, than for the moderate pay it procured him, and who, at a time when higher education was not so easily attainable as it now is, managed to acquire a fair knowledge of mathematics, so far as spherical trigonometry, and an intelligent comprehension of all the processes, alike of observation and calculation, required in the discharge of his somewhat difficult duties. He died in 1880.

The Magnetical Observations for the next five years, 1846 to 1850, were made under the successive superintendence of Mr. T. G. Taylor; Captain W. K. Worster, Madras Artillery, and Captain W. S. Jacob, Bombay Engineers, all now deceased. The calculations and press revision were the work of R. Ramanajooloo, and the results were published by Captain Jacob in 1854.

The printing of the third five years series, from 1851 to 1855, contained in the present volume, was commenced in July 1860, when no astronomical work was in hand; the old instruments being dismantled and the new Transit Circle not yet ready for use. The results for 1851 were completed by Ramanajooloo before my arrival in India, which will account for the somewhat remarkable foot notes to be found in the earlier pages. The erection of the new Transit Circle and other instruments; the far more important astronomical arrangements then inaugurated and the frequent discoveries made during the next five years, caused the less interesting arrears of Magnetic researches to be comparatively shelved; and above all, the discouraging regulations in regard to the distribution of volumes, peculiar to Madras though unknown elsewhere, all combined to delay the completion of the volumes. The very kind and liberal consideration of the present Government of Madras, in removing the painful restrictions hitherto in force, will insure the earliest possible publication of all past results on hand, and will give renewed energy to the future exertions of the oldest established English colonial observatory.

The forms adopted in the previous volume, for 1846 to 1850, have been strictly adhered to in the following pages, though in many respects not in accordance with my own views upon the subject. The English practice of leaving Nature's works unrecorded on Sundays and the adoption of Gottingen Mean Time for the commencement of the day, together, caused only six hours observations to be made on each Saturday, and after a break of twenty-four hours, thirteen more on Sunday (Madras Monday, A.M.). By the application of proper hourly corrections, the deduced means for each day might easily have been shewn; instead of which the Saturday mean results are omitted, and those given as for each Sunday are

made up of observations, partly on Saturday but chiefly on Monday. With a questionable view to lighten the labors of the observers in some years, five of the hourly observations were omitted during the night; but here again, instead of using the means of the nineteen readings actually made, with the proper hourly corrections duly applied, the missing hourly records were filled up by dubious interpolations. Days of imperfect or broken records, usually attributable to sudden illness or ceremonies incumbent upon the native observers, as for instance in the first week of 1851, were entirely omitted from the daily and monthly means. The results of the Force Observations should have been reduced to British, or better still to continental units, instead of being given as mere ratios; and lastly, there is too frequently a very needless display of decimals, far in excess of what the observations warranted; a weakness common to many similar scientific labors, elsewhere as well as at Madras.

THE DECLINATION MAGNETOMETER.

The steel bar magnet employed was fifteen inches long, seven-eighths broad and a quarter of an inch thick. Its weight was 6713 grains, or when equipped with its scale, stirrup and lens, 8838 grains. It was suspended between two copper dampers, by twenty-four silk fibres; the distance between the bar and its point of suspension being about thirty-six inches. The Torsion Circle was four and a half inches in diameter. Reading telescopes and collimators were supplied with the magnetometers, but by some oversight the latter were used instead of the former, which unfortunately gave rise to the possibility of the vertical reading wire being changed, by the collimator being turned round one or more quadrants, which of course never could have occurred had the proper reading telescopes been employed. A thirty inch Transit Instrument, by Dollond, was used for finding the astronomical north, and an excellent eight inch Everest's theodolite, by T. Jones of London, placed midway between the Transit instrument and the Declinometer, gave the azimuth of the vertical wire of the reading telescope and hence the magnetic declination at any time desired. Four substantial brick piers, each about eight feet apart, supported these appliances nearly in a meridian line; the Transit instrument being most northward and the reading telescope of the Declinometer the southernmost of the four. All the Magnetometers bear the maker's name "Grubb, Dublin."

The observations of the Declination Magnetometer are printed, as read off, in tenths of the scale divisions; the daily means only being shewn in arc. A correction of $+ 7' 6''$ has been applied throughout, for the influence of the brick walls of the building. The details of this determination were given in Tables VI to XI of the previous volume. The adopted value of one division of the scale was determined on 26th April, 1847, viz., $40'' 30$; that furnished by the Royal Society in the "*Report of the Committee of Physics*," page 23, being $40'' 48$. The adopted Zero of the Declinometer Scale throughout the five years was 1497, the mean of two determinations in March and December 1854.

INDUCTION INCLINOMETER.

No trace of this instrument remaining in the Observatory or in the recollection of any one now on the establishment, all that can be said concerning it is, that its readings have only been retained on Term Days and on the occasions of Disturbance Observations. The following brief description of it was given by Captain W. S. Jacob in the "*Introduction*" to the former volume.

"The instrument used is a small portable unifilar Magnetometer, with a cylindrical needle, a quarter of an inch thick and three and a quarter inches in length, and two soft iron bars of three-quarter inch thickness and nine inches length. The instrument appears inapplicable to these latitudes; its changes appear to follow those of the Declinometer very closely, so that no certain deduction can be derived from them."

HORIZONTAL FORCE MAGNETOMETER.

The instrument by which the hourly changes of the horizontal component of the earth's magnetic force was measured, was a bifilar magnetometer, with a steel bar, suspended by two silver wires, or more correctly, by a single wire a little over seventy-two inches in length, passing round a pulley 0.645 inch in diameter. By means of a four and a half inch torsion circle above, the magnetic bar was turned to point

nearly East and West, in which position its equilibrium would be maintained by two opposing forces; that of the earth's directive power, tending to bring it to the magnetic meridian; and that of gravity, which would compel it to rest in the direction of the two supporting points of the wire by which it hangs. The latter force is variable only by the slight alteration in the length of the wire, arising from a change of temperature which can be duly allowed for, while the former is altered by every change in the earth's directive magnetic force. At right angles to the magnetic bar, a small collimator is attached, the axis of which will therefore be the magnetic meridian, and every change in its direction indicated by the varied readings of its divided scale, as seen in a small fixed telescope, is readily convertible into corresponding changes of the earth's horizontal magnetic force, by means of well known formulæ, given in the Royal Society's "*Report of the Committee of Physics*," which have been strictly followed throughout and therefore need no repetition in this brief description of the instrument.

The records printed are, the hourly readings in tenths of the scale division on the upper half of each page, and the corresponding temperatures on the lower half. Temperature corrections are shewn for the mean daily readings and for the mean hourly readings for each month, and only these corrected means are reduced into the relative magnetic force changes represented by the expression $1 + \frac{\Delta X}{X}$

The value of one division of the scale furnished by the Royal Society was $64''74$, or expressed in parts of radius, 0.0003139 . Owing to the scale having been inverted throughout, increase of force is shewn by diminished readings of the instrument. The Fahrenheit's thermometer used read 0.5° too high, and the adopted temperature correction was 3.3963 divisions for each degree. The value of the angle v , used during the five years, was $75^\circ 15'$ as found on June 30th, 1851; and the Zero of the scale, reduced to the standard temperature of 80° , was 1215.

Throughout the year 1846, and also in 1847 until October 19th, when the instruments were removed to the Astronomical Observatory, the angle v was always erroneously given 90° too great, at the top of each page in the former volume, but the correct value was fortunately used in the calculation of k .

VERTICAL FORCE MAGNETOMETER.

The Vertical Force Needle was of the ordinary construction and 13.5 inches in length. The Vertical Force results were never entitled to any confidence, especially before March 1st, 1853, when, for the first time, the needle was placed *nearly perpendicular to the magnetic meridian*, agreeably to the directions so clearly given in the Royal Society's "*Report*," page 32. Previously to that date it had been curiously misplaced, $45'$ West of the magnetical meridian, instead of at right angles thereto.

The elements of reduction being given in full at the top of each page of the observations, it is needless to repeat them in a tabular form here. As stated at the foot of page 20, increasing readings shew a diminution of force. They are given in tenths of the micrometer divisions, and the temperatures of the thermometer inside also to tenths of a degree Fahrenheit, the daily mean temperatures being most needlessly extended to hundredths of a degree. Only monthly results of $\frac{\Delta Y}{Y}$ are shewn, for the purpose of giving the hourly variations from the monthly means.

DISTURBANCES OF THE MAGNETIC OBSERVATIONS.

Whenever any decided departure from the usual hourly variations of the instruments was noticed, readings of all four magnetometers were recorded at brief intervals of five minutes or less. These observations are separately given on pages 221 to 231.

MAGNETIC INCLINATION OR DIP.

The Dip Circle, ten inches in diameter, by Robinson, of London, was the same used by Captain Ludlow in the old Magnetic Observatory; a smaller circle, by the same maker, having been employed from 1846 to 1850. The observations were made on Tuesdays and Fridays, at $6\frac{1}{2}$ and $11\frac{1}{2}$ A.M., near the times of presumed maximum and minimum inclination at Madras. They were carefully taken and are entitled to consideration, though certainly not reliable to seconds of arc, as given in the printed results.

ABSOLUTE HORIZONTAL FORCE.

Determinations of the Absolute Horizontal Intensity were usually made near the end of each month, with an independent Declinometer, similar to the one before described, but placed in a detached building expressly for that purpose. The absurd detail of these observations and their reductions in the former volume was beyond endurance, and the printed results in this volume have been considerably abridged, though still carried out to a most unwarrantable extent of mere arithmetical display.

The magnet was of the same dimensions as that used in the other Declinometer. Its weight was stated to be 6727 grains up to 1854, July 27th; and g at Madras, 32.0984 feet. Hence $\log. k$ was 1.43745. The magnet was cleaned before the next observation in 1854, September 1st, and was then found to weigh only 6695 grains, which changed $\log. k$ to 1.43538.

The value of one division of the scale was 40"30.

The Torsion Factors $1 + \frac{H}{F}$ employed were not shown in the calculations, but were mixed up with the scale value. Separating them therefrom, the following are the factors really used:—

1851 January 28	...	...	1.00023	1851 October 26	...	...	1.00041
1851 November 27	...	...	1.00030	1854 December 3	...	...	1.00053
1854 September 25	...	...	1.00035	1855 December 24	...	...	1.00037

With the aid of these constants, the observations and partial results printed on pages 234 to 238, can readily be converted into absolute determinations of X ; which, however, simply expresses the ratio which that force bears to the *unit of force*. In the former volume this was only given as a ratio, and required to be multiplied by $\sqrt{g}$ to express it in British Units.

In the present volume, British Units (foot, grain, second) are used, though I have been strongly urged to adopt the continental units (centimetre, gramme, second) by two eminent magnetists to whose opinion I shall probably defer in the two remaining volumes. One of these, the still unpublished first, will contain the observations from 1841 to 1845; the fourth and last of the twenty year hourly series carried out at Madras, will be for the years 1856 to 1860.

The remaining tables, after page 239, require no remarks beyond my dissent from their needless detail. With rare exceptions, all the records and determinations were made by the native assistants, whose names and adopted initials, in this and the former volume, were as follows:—

C. Veerasawmy Pillay	V	P. Bashiacarloo Naidoo	B
C. Sashoo Iyengar	S	T. Mootosawmy Pillay	M
R. Ramanajooloo Naidoo.	R R	G. Veerasawmy Naidoo	G V
C. Ragoonatha Chary	R	C. Varadaya Naidoo	C V
M. Christnama Chary	M C		

Of the successive Directors of the Magnetical Observations, *viz.*, Colonel S. O. E. Ludlow, Mad. Eng.; T. G. Taylor, Esq., H. C. Astronomer; J. J. Franklin, Esq., Superintendent of Marine; Captain W. S. Jacob, Bom. Eng.; Major General W. K. Worster, Mad. Art., and Major General J. F. Tennant, R. E., who was in charge in 1860, only the last survives. The six first native assistants in the list are all dead, and the last three, though still living, are incapacitated and oblivious of the past. The difficulty of publishing arrears of scientific observations, when not one concerned in them can be consulted, is very serious, and must be accepted as an apology for all shortcomings in the present volume.

N. R. POGSON,
Government Astronomer.

MADRAS, 1851.

MAGNETICAL OBSERVATIONS.

MADRAS, 1851.—MAGNETICAL OBSERVATIONS.

$$\alpha \cdot (1 + \frac{H}{F}) = 4.03 \times 1.000385 = 4.03155. \quad \alpha + 7.06 = \rho = 0.42.37.2 + 0.7.06 = 0.49.43.2 \text{ East of North. Zero 1497.}$$

DECLINATION MAGNETOMETER.

Gottingen Mean Time.		Noon.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Absolute Declination to the East of North.	
Madras Mean Time.		P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41			
		s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.		
					1.6		-0.4		0.4		0.4		0.6															
		† 1	1628	1620	1634		1632		1627		1642				1630	1620	1610	1610	1620		1620		1607		1622			
		† 2	629		627		626		630		630				620		620		637		634		622		630			
		† 3	631		622		622		626		630				620		613		630		647		620		621			
		† 4	639		626		623		625		627																	
		† 5													625		627		632		640		632		642			
		† 6	643		628		631		627		630				623		623		640		648		629		635			
		7	643	636	632	632	628	625	623	624	624	625	626	624	620	617	618	617	620	630	632	620	616	605	610	622	624	0 58 15
		8	629	624	623	628	630	625	621	623	624	622	620	620	618	617	620	630	640	640	640	614	608	606	612	628	623	58 11
		9	637	628	624	629	630	632	634	632	630	630	630	628	624	624	625	610	620	635	635	630	610	604	613	619	626	58 23
		10	630	627	626	630	631	630	630	631	631	631	630	629	627	624	628	624	630	640	620	610	606	589	600	618	624	58 15
		11	630	628	628	631	630	629	629	627	625																	
		12										623	620	621	620	616	615	620	640	632	623	611	602	590	600	612	621	58 03
		13	623	630	632	636	637	635	634	634	634	635	635	633	630	623	623	630	655	662	660	642	637	639	626	630	636	59 04
		14	634	630	630	633	633	637	642	644	645	642	638	633	626	630	630	630	648	666	652	631	618	624	620	623	635	58 59
		15	622	626	634	637	637	637	638	636	634	637	639	640	640	630	630	626	640	652	655	645	640	639	630	640	637	59 08
		16	642	635	640	642	640	640	640	653	666	666	666	665	662	659	640	640	637	639	629	630	628	634	639	643	645	59 40
		17	642	638	639	643	644	644	644	642	640	639	638	635	631	628	627	625	635	645	646	638	640	648	638	639	639	59 16
		18	650	644	644	645	642	639	636	636	636																	
		19										628	620	626	630	610	606	614	655	670	665	612	604	619	619	640	633	58 51
		20	650	652	644	655	662	656	651	647	643	644	645	643	640	636	639	642	648	652	640	615	619	628	624	626	642	59 28
		21	625	628	637	637	633	635	638	642	645	647	649	642	633	630	640	650	680	673	660	650	640	630	640	645	643	59 32
		22	641	630	635	638	638	637	636	638	639	641	642	643	643	642	641	640	650	644	623	610	614	602	610	630	634	58 55
		23	640	631	636	635	631	634	637	639	640	636	632	627	620	620	628	638	655	666	657	642	632	626	620	637	636	59 04
		24	639	630	631	635	636	635	635	635	635	633	630	627	623	628	632	650	675	670	642	618	610	615	619	630	634	58 55
		25	634	623	626	629	629	628	627	628	628																	
		26										628	628	627	625	625	630	628	645	645	620	602	601	610	610	607	624	58 15
		27	612	622	629	633	633	630	628	626	624	624	623	620	616	610	607	620	645	650	630	628	628	634	635	625	626	58 23
		28	622	620	621	622	620	618	617	617	617	618	618	615	610	610	612	614	640	648	630	612	611	616	613	620	619	57 55
		29	623	622	622	628	630	625	620	621	621	619	616	614	610	613	613	625	646	650	644	631	617	612	616	624	623	58 11
		30	631	630	628	627	623	622	622	627	632	628	624	620	615	612	613	625	642	640	618	608	593	608	612	612	621	58 03
		31	615	612	613	618	620	618	617	611	605	609	613	612	610	610	611	620	646	669	656	629	612	620	634	642	622	58 07
Means.....			1632	629	631	634	633	631	631	632	633	631	631	629	626	623	624	627	645	651	637	624	618	618	620	628	1630	
Declination.....			58 47	58 35	58 43	58 55	58 51	58 43	58 43	58 47	58 51	58 43	58 43	58 35	58 23	58 11	58 15	58 27	59 40	60 04	59 08	58 15	57 51	57 51	57 59	58 31		
Mean Hourly Variations from General Monthly Mean.			8	-4	04	16	12	4	4	8	12	4	04	-4	-16	-28	-24	-12	61	85	29	-24	-48	-48	-40	-8		0 58 39
						-0.2	-0.7	0.6	0.0	0.1																		
		1	1638	1630	1626	1626	1627	1626	1627	1630																		

$$\alpha \left(1 + \frac{H}{F}\right) = 4.03 \times 1.000385 = 4.03155 \quad \alpha + 7.06 = \rho = 0.42.37.2 + 0.7.06 = 0.49.43.2 \text{ East of North. Zero 1497.}$$

DECLINATION MAGNETOMETER.

Gottingen Mean Time.		Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.	Absolute Declination to the East of North.		
Madras Mean Time.		P.M. h.m. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41			h.m. 3.41	
		s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s. d. t.	Arc.
MARCH 1851. Declination Magnetometer.	1	1640	1634	1630	1627	1628	1628	1630	1635	1640	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1634	0 58 55
	2	—	—	—	—	—	—	—	—	—	1641	1640	1640	1640	1644	1649	1640	1637	1633	1619	1621	1622	1619	1630	1640	1634	0 58 43	
	3	635	634	623	621	623	625	629	630	630	631	631	628	626	627	618	616	628	638	632	630	639	650	655	654	631	629	58 35
	4	648	628	622	621	623	625	629	630	630	631	630	627	625	626	633	631	640	645	635	618	609	619	630	640	629	631	58 43
	5	640	630	623	623	627	627	628	629	630	631	630	627	625	624	636	638	639	632	623	628	627	640	650	631	629	631	58 35
	6	649	635	628	624	623	622	622	624	625	624	622	623	624	626	630	630	640	643	632	627	627	624	632	638	629	628	58 31
	7	639	628	623	624	628	625	622	625	628	628	627	626	626	631	630	637	640	640	640	632	618	615	620	630	628	628	58 47
	8	629	629	622	624	629	629	630	630	630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	9	—	—	—	—	—	—	—	—	—	—	636	640	639	639	638	632	634	631	630	630	622	628	630	640	645	632	58 20
	10	640	635	638	636	638	638	638	644	650	647	642	641	640	638	645	650	640	640	640	628	624	630	642	648	640	642	59 28
	11	653	649	638	636	637	639	642	645	648	650	650	647	645	652	660	650	640	630	630	630	626	621	637	650	642	640	59 20
	12	642	633	631	635	643	642	642	642	642	642	640	639	639	641	650	655	650	650	640	635	623	630	638	637	640	638	59 12
	13	630	627	632	634	639	639	640	640	640	641	640	639	638	636	640	644	645	650	647	634	634	629	632	638	638	638	59 12
	14	634	628	628	631	637	638	640	640	640	645	648	645	642	639	640	640	622	620	620	612	610	620	632	639	633	633	58 51
	15	651	648	639	639	642	640	639	640	640	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	16	—	—	—	—	—	—	—	—	—	—	636	630	632	634	631	646	657	668	665	652	637	621	623	633	643	641	59 24
	17	646	635	632	628	630	630	630	632	634	634	633	632	632	636	640	650	657	650	640	612	600	600	615	633	632	632	58 47
	18	632	629	623	623	627	628	630	630	630	631	630	629	629	631	635	635	640	640	635	632	628	622	640	643	631	629	58 43
	19	637	630	628	626	628	626	624	627	630	631	630	630	630	629	630	634	640	638	627	611	602	612	620	628	627	627	58 27
	20	630	625	620	623	630	630	630	639	647	647	646	643	641	642	645	650	650	652	641	622	613	610	615	632	634	634	58 55
	21	633	627	622	620	622	622	623	627	630	631	630	630	630	627	635	640	650	660	645	630	618	612	623	630	630	630	58 39
	22	628	633	628	628	632	631	630	630	630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	23	—	—	—	—	—	—	—	—	—	—	336	640	635	630	629	630	634	645	650	650	637	620	613	620	630	632	58 47
	24	630	632	629	630	635	635	635	638	641	639	636	635	635	633	635	642	653	645	635	620	614	614	623	635	633	633	58 51
	25	638	632	629	629	633	632	631	632	633	632	630	632	634	630	640	654	670	680	677	659	640	630	632	635	640	640	59 20
	26	634	630	632	630	632	632	632	631	630	632	632	632	632	630	645	650	650	652	645	630	612	611	620	630	633	633	58 51
	27	630	628	622	622	625	623	622	626	630	632	632	630	629	630	641	649	655	653	651	637	617	613	615	628	631	629	58 43
	28	630	633	629	624	623	626	630	634	638	637	635	635	636	633	645	653	648	647	635	612	607	624	638	636	633	633	58 51
	29	640	629	632	631	634	634	635	635	635	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	642	647	646	645	643	646	650	654	655	650	633	630	633	650	657	641	59 24
	31	650	640	638	638	642	645	648	649	649	647	644	644	644	637	640	642	650	660	656	632	618	620	637	646	642	642	59 28
Means.....		1638	632	628	628	631	631	632	634	636	637	636	635	634	634	639	642	645	646	640	628	620	621	631	639	1634	1634	
Declination		59 12	58 47	58 31	58 31	58 43	58 43	58 47	58 55	59 04	59 08	59 04	58 59	58 55	58 55	59 16	59 28	59 40	59 44	59 20	58 31	57 59	58 03	58 43	59 16	—	—	
Mean Hourly Variations from General Monthly Mean.		16	-9	-25	-25	-13	-13	-9	-1	8	12	8	3	-1	-1	20	32	44	48	24	-25	-57	-53	-13	20	—	0 58 56	
APRIL 1851. Declination Magnetometer.	1	1648	1638	1636	1635	1636	1636	1637	1639	1642	1645	1645	1642	1640	1648	1652	1654	1649	1638	1622	1600	1598	1600	1623	1634	1635	0 58 59	
	2	634	630	627	628	632	633	636	637	640	641	640	639	638	638	645	641	639	631	618	611	610						

$$a(1+\frac{H}{F}) = 4.03 + 1.000385 = 4.03155. \quad \alpha + 7.06'' = \rho = 0.42^{\circ}37'2'' + 0.7'06'' = 0.49^{\circ}13'2'' \text{ East of North. Zero 1497.}$$

DECLINATION MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.		Absolute Declination to the East of North.
P.M. Madras Mean Time.		h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.		h.m.
		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41			
		s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	Arc.
					-1.6 *			0.6 *		-0.4 *		0.5 *		-0.4 *														
MAY 1851. Declination Magnetometer.	1	1640	1640	1630	1627	1627	1629	1629	1635	1642	1642	1641	1641	1641	1650	1670	1670	1660	1650	1650	1650	1638	1635	1631	1635	1642	0° 59' 28"	
	2	640	648	661	647	636	639	640	645	650	650	649	656	664	662	668	680	678	658	640	628	622	625	630	648	648	59' 52"	
	3	660	660	643	640	640	645	648	649	650																		
	4										654	657	653	650	645	668	682	691	672	660	648	634	632	642	648	653	60' 12"	
	5	648	651	650	646	646	654	660	661	662	671	678	666	655	655	678	680	668	660	650	640	632	632	632	633	654	60' 16"	
	6	644	650	650	647	647	646	643	647	652	653	652	655	658	656	676	680	666	647	628	618	610	620	630	641	646	59' 44"	
	7	650	653	651	649	650	651	651	650	650	651	651	649	648	661	670	662	658	639	620	610	614	631	650	660	647	59' 48"	
	8	670	673	665	661	660	658	655	653	651	652	651	651	652	661	668	667	650	630	610	615	622	640	648	640	650	60' 00"	
	9	648	648	647	642	640	640	639	647	656	659	661	654	648	649	666	680	673	660	645	630	620	630	642	642	649	59' 56"	
	10	650	652	650	645	643	647	649	650	651																		
	11										653	653	651	650	649	670	680	667	650	630	610	609	600	601	610	642	59' 28"	
	12	621	633	636	634	635	640	643	647	652	652	650	646	643	645	668	680	670	640	620	600	604	606	603	612	637	59' 08"	
	13	626	636	636	635	637	640	642	646	650	651	650	648	646	655	678	673	670	647	624	622	628	630	630	632	643	59' 32"	
	14	630	632	632	631	633	638	641	642	644	647	649	646	644	652	681	690	680	649	620	610	600	607	617	628	639	59' 16"	
	15	644	648	637	636	638	640	640	640	640	641	641	641	642	651	670	673	670	650	634	612	602	609	618	621	639	59' 16"	
	16	618	630	620	622	627	630	632	637	642	643	642	639	638	635	654	670	660	640	630	618	614	612	637	640	635	58' 59"	
	17	649	652	652	648	647	646	644	643	642																		
	18										647	651	653	655	653	668	666	651	642	637	627	620	622	636	644	646	59' 44"	
	19	650	648	640	639	642	644	645	646	648	650	650	645	641	637	649	655	659	650	637	620	625	630	638	640	643	59' 32"	
	20	654	652	650	646	645	644	642	642	643	645	645	645	645	653	667	677	674	657	640	640	646	644	640	650	649	59' 56"	
	21	652	650	642	638	637	639	640	643	647	646	643	644	646	640	651	650	645	632	624	628	630	630	634	648	641	59' 24"	
	22	656	659	650	645	643	644	643	645	648	650	651	651	652	660	667	660	660	647	630	618	612	622	642	653	646	59' 44"	
	23	655	650	650	644	642	645	647	648	650	651	650	650	650	655	662	665	662	658	651	642	626	621	638	635	648	59' 52"	
	24	642	640	635	631	630	634	637	639	641																		
	25										651	659	654	649	655	677	670	660	648	630	626	624	621	633	640	643	59' 32"	
	26	640	630	635	632	633	636	637	641	645	644	642	642	642	650	670	673	662								?	?	
	27																					596	603	617	628			
	28	632	638	629	623	620	621	620	621	622	626	629	630	632	641	655	663	650	620	600	580	580	590	592	602	621	58' 03"	
	29	617	628	622	618	618	621	622	623	625	628	630	629	628	638	660	660	652	630	603	590	587	601	619	638	624	58' 15"	
	30	640	630	624	619	618	620	621	624	628	634	639	634	630	629	644	653	659	652	630	610	601	608	619	630	629	58' 35"	
	31																											
Means.....		1643	646	642	638	638	640	641	643	645	648	649	647	646	649	666	670	664	647	631	620	617	621	629	637	1642		
Declination.....		59 32	59 44	59 28	59 12	59 12	59 20	59 24	59 32	59 40	59 52	59 56	59 48	59 44	59 56	61 04	61 21	60 56	59 48	58 43	57 59	57 47	58 03	58 35	59 08			
Mean Hourly Variations from General Month- ly Mean.....		"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	0 59 29		
		3	15	-1	-17	-17	-9	-5	3	11	23	27	19	15	27	95	112	87	19	-46	-90	-102	-86	-54	-21			
JUNE 1851. Declination Magnetometer.	May 31	1630	1627	1624	1620	1620	1623	1625	1627	1629																		
	1										1629	1628	1623	1620	1635	1654	1670	1658	1640	1612	1588	1582	1588	1593	1602	1623	0° 58' 11"	
	2	618	620	617	611	620	620	620	619	618	623	628	624	622	630	648	640	639	633	619	588	578	590	583	589	617	57' 47"	
	3	600	607	610	605	605	608	611	616	620	623	625	625	626	632	642	658	651	640	620	602	610	595	586	600	615	57' 39"	
	4	607	613	618	612	610	611	612	615	618	621	623	621	620	625	638	640	648	640	625	610	584	576	580	589	615	57' 39"	
	5	598	611	608	607	610	611	611	624	636	640	644	636	630	640	660	668	662	633	610	590	588	595	600	610	622	58' 07"	
	6	615	620	618	611	608	611	613	618	623	625	627	623	620	622	642	650	648	632	616	610	600	596	604	621	620	57' 59"	
	7	630	625	617	612	612	615	618	620	621																		
	8										620	618	614	612	630	650	660	640	610	594	600	588	590	610	612	617	57' 47"	
	9	618	615	620	615	615	612	608	616	623	626	629	629	630	634	652	670	659	628	605	590	584	592	604	616	620	57' 59"	
	10	620	617	612	609	610	607	604	608	611	612	613	615	618	622	648	650	645	632	610	588	586	592	600	615	614	57' 35"	
	11	620	620	616	606	600	605	609	608	607	610	613	611	610	622	650	650	630	598	582	580	562	572	590	605	607	57' 07"	
	12	620	627	622	616	615	613	611	612	612	612	612	610	610	620	635	642	642	634	620	616	610	611	625	625	620	57' 59"	
	13	620	620	617	611	610	610	610	610	610	610	609	609	610	610	637	640	630	630	610	600	590	593	612	637	614	57' 35"	
	14	643	634	621	618	620	617	614	616	617																		
	15										619	621	620	620	630	640	640	630	620	610	600	580	578	592	610	617	57' 47"	
	16	621	626	622	621	625	629	633	637	640	635	630	629	630	637	657	655	647	621	590	585	580	573	575	581	620	57' 59"	
	17	600	610	624	621	622	622	622	621	620	622	624	621	620	630	651	658	651	640	629	619	602	609	607	618	623	58' 11"	
	18	627	623	620	616	617	618	619	621	623	626	628	625	623	630	650	658	649	634	612	598	589	580	581	594	619	57' 55"	
	19	612	622	635	626	622	621	620	622	624	626	627	627	628	633	647	640	629	618	600	580	574	586	590	600	617	57' 47"	
	20	618	620	623	619	620	621	621	621	620	623	626	627	630	637	65												

* The numbers in these columns are not observed; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the corrections of interpolations.
† The observations of 26th and 27th are rejected from the hourly and daily means,

$$\alpha(1+\frac{H}{F})=4.03+1000385=4.03155$$

$$\alpha+7.6''=\rho=0.42.37.2+0.7.6''=0.49.43.2 \text{ East of North. Zero 1497.}$$

DECLINATION MAGNETOMETER.

Gottingen. Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Absolute Declination to the East of North.			
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
JULY 1851. Declination Magnetometer.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.		Arc.			
				-1.4		0.0		-0.2		0.9		-0.6														0	58 43		
	1	1617	1628	1622	1621	1622	1625	1629	1631	1634	1638	1640	1639	1640	1650	1684	1699	1689	1655	1625	1592	1580	1580	1598	1608	1631	0	58 43	
	2	618	619	618	614	612	615	619	619	620	631	640	639	640	647	665	667	664	647	630	612	612	625	611	612	629	0	58 35	
	3	618	620	617	617	620	621	622	631	640	646	650	652	655	650	680	692	680	650	624	594	590	601	602	612	633	0	58 51	
	4	619	630	626	622	621	623	626	629	632	637	640	639	640	633	660	672	680	662	640	595	589	590	604	621	630	0	58 39	
	5	625	630	634	630	628	628	628	628	628	628	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7	628	631	629	623	620	621	622	623	625	633	640	639	640	640	662	660	657	635	615	588	589	592	608	614	626	0	58 23	
	8	625	628	624	620	619	620	621	622	623	627	630	630	632	640	663	670	660	640	620	610	590	592	602	618	626	0	58 23	
	9	630	632	623	621	622	626	631	631	632	634	635	635	637	640	650	647	646	640	622	602	602	602	622	620	628	630	0	58 39
	10	632	639	628	622	619	621	623	623	623	630	635	637	640	645	669	654	637	620	602	583	572	592	622	617	632	625	0	58 19
	11	637	632	621	619	620	625	630	628	627	630	632	630	630	640	660	660	648	635	622	602	598	610	620	640	629	0	58 35	
	12	650	655	633	626	622	624	627	628	629	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	14	638	638	640	636	635	635	636	637	639	645	650	652	656	662	690	683	660	653	638	630	625	620	630	646	645	0	59 08	
	15	650	648	651	647	645	647	650	650	650	656	660	657	655	665	689	690	666	646	630	630	633	622	617	618	649	0	59 40	
	16	630	638	641	639	639	642	645	647	649	652	653	656	660	660	680	705	698	680	650	633	620	600	607	625	648	0	59 56	
	17	630	639	638	634	632	637	642	646	650	651	650	648	647	650	677	688	690	680	660	642	628	603	602	610	645	0	59 40	
	18	630	643	650	644	640	640	640	641	642	649	655	652	650	655	661	669	660	660	660	635	622	603	610	617	643	0	59 32	
	19	632	638	642	641	642	641	640	644	648	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	21	643	650	652	645	641	639	638	637	637	644	650	649	650	655	676	688	688	680	660	643	630	633	636	645	650	0	59 28	
	22	642	643	650	646	644	646	649	649	650	651	650	649	650	657	670	668	660	660	662	648	635	632	634	647	650	0	00 00	
	23	655	655	659	653	649	648	648	645	643	647	650	649	650	659	680	678	670	654	636	630	620	629	640	643	650	0	00 00	
	24	646	643	640	638	638	640	642	647	653	653	652	655	660	670	690	690	670	650	632	630	630	633	629	645	649	0	59 56	
	25	655	653	640	636	635	638	642	648	655	653	650	649	650	668	688	678	658	640	628	607	603	610	618	630	643	0	59 32	
	26	640	647	648	644	642	642	642	645	649	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	28	636	639	636	633	632	633	635	637	640	642	643	643	645	655	679	685	674	650	640	605	592	588	610	618	637	0	59 44	
	29	640	635	630	633	639	640	642	646	650	654	657	658	660	660	678	680	677	668	640	614	593	593	604	617	642	0	59 08	
	30	627	633	640	638	638	639	640	644	648	652	655	652	650	660	678	680	670	650	640	614	613	608	619	630	642	0	59 28	
31	645	649	643	637	634	636	638	640	642	647	650	649	650	655	677	680	670	660	641	621	630	609	610	610	643	0	59 32		
Means.....	1635	638	636	633	631	633	635	637	639	643	646	646	647	652	673	677	668	652	634	615	608	608	616	626	1639	0	59 14		
Declination.....	58	59	59	12	59	04	58	51	58	43	58	51	58	59	59	08	59	16	59	32	59	44	59	48	60	08	61	33	
Mean Hourly Variations from General Monthly Mean.....	-15	-2	-10	-23	-31	-23	-15	-6	2	18	30	30	34	54	139	155	118	54	-19	-95	-123	-123	-91	-51		0	59 14		
AUGUST 1851. Declination Magnetometer.				-1.1		-0.9		-0.6		0.2		-0.2																	
	1	1613	1618	1634	1632	1632	1623	1633	1636	1640	1642	1643	1642	1650	1670	1674	1667	1657	1640	1629	1620	1618	1619	1628	1638	0	59 12		
	2	632	634	632	629	629	621	632	633	636	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	4	650	640	643	638	635	6																						

$$a + 7' \cdot 6'' = p = 0 \cdot 42' 37'' \cdot 2 + 0 \cdot 7' \cdot 6'' = 0 \cdot 49' 43'' \cdot 2 \text{ East of North. Zero 1497.}$$

DECLINATION MAGNETOMETER.

* The numbers in these columns are not observed ; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the corrections of interpolations

$$\alpha + 7^{\circ}6' = \rho = 0^{\circ}42'37.2'' + 0^{\circ}7'6'' = 0^{\circ}49'43.2'' \text{ East of North. Zero 1497.}$$

DECLINATION MAGNETOMETER.

[illegible]

* The numbers in these columns are not observed ; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the corrections of interpolations.

$k = \alpha. \text{Cot}.v = 0\cdot0003139 \times \text{Cot}.75^{\circ}14' = 0\cdot00008274$ $\frac{s.d.}{3\cdot3963} = \text{Correction for } 1^{\circ} \text{ Faht.}$ Zero for Magnetometer 1431 at Ther. $8^{\circ}\cdot03$ or Corrected Zero 1438.
Zero for Thermometer $80^{\circ}\cdot5$ or Standard 80° .

HORIZONTAL FORCE MAGNETOMETER.

Göttingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.		Temperature Corrections.	Corrected Means.	+ $\frac{\Delta X}{X}$
Madras Mean Time.		P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	0.41	1.41	2.41	3.41					
		s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.			
					1.8 *			0.6 *		-0.9 *		-0.2 *		-0.2 *																
JANUARY 1851. Horizontal Force Magnetometer.	+1	1175	1160	1177	1203	1225	1222	1217	1231	1247	1230	1213	1197	1182	1164	1130	1085	1010		930		996		1137						
	+2	1161		1183	1185	1183	1177	1170	1155	1142				1120		1107		1008		990		932		1069						
	+3	1116		1132	1130	1125	1124	1122	1121	1122				1113		1102		1010		902		960		1130						
	+4	1164		1143	1141	1135	1138	1140	1136	1134																				
	+5														1130		1130		1064		910		860		1072					
	+6	1128		1128	1131	1130	1133	1135	1128	1122					1110		1100		1080	1050	998	923	937	1000	1042	1069				
	7	1096	1103	1108	1101	1090	1093	1095	1093	1092	1092	1093	1091	1090	1088	1087	1083	1048	993	950	926	931	1002	1022	1040	1059	76	1135	1.0025	
	8	1060	1081	1112	1117	1118	1120	1120	1118	1117	1112	1108	1104	1100	1100	1105	1098	1070	995	932	925	932	1000	1048	1080	1070	75	1145	1.0025	
	9	1106	1114	1112	1113	1110	1123	1134	1141	1150	1145	1140	1140	1140	1130	1112	1120	1082	1043	962	935	975	1060	1097	1121	1096	81	1177	1.0025	
	10	1135	1150	1142	1141	1136	1134	1130	1126	1123	1125	1127	1128	1130	1120	1120	1110	1094	1045	1028	1005	960	1001	1060	1094	1099	71	1170	1.0025	
	11	1132	1130	1130	1134	1135	1139	1142	1141	1141																				
	12											1143	1145	1142	1140	1120	1115	1093	1090	1036	994	947	943	1010	1070	1110	1097	55	1152	1.0025
	13	1124	1144	1147	1154	1158	1167	1175	1164	1154	1153	1153	1151	1150	1150	1160	1135	1095	1063	1000	1022	1050	1122	1120	1150	1128	36	1164	1.0025	
	14	1166	1170	1168	1176	1181	1197	1212	1211	1212	1213	1215	1201	1188	1180	1170	1150	1123	1102	1081	1062	1081	1110	1150	1151	1161	18	1179	1.0025	
	15	1169	1175	1179	1185	1187	1188	1188	1189	1192	1200	1208	1209	1210	1200	1172	1150	1110	1119	1117	1120	1141	1158	1180	1221	1174	16	1190	1.0025	
	16	1220	1202	1063	1147	1227	1264	1300	1406	1513	1456	1400	1416	1433	1435	1462	1450	1439	1398	1288	1331	1338	1342	1379	1382	1345	7	1352	1.0025	
	17	1372	1355	1361	1359	1353	1351	1348	1347	1348	1339	1330	1325	1320	1290	1290	1255	1260	1210	1167	1140	1150	1238	1270	1329	1296	14	1310	1.0025	
	18	1360	1370	1398	1386	1370	1340	1309	1294	1280																				
	19											1246	1213	1219	1225	1220	1170	1155	1145	1080	1034	1109	1311	1283	1516	1261	26	1287	1.0025	
	20	1580	1721	1672	1669	1663	1568	1471	1471	1472	1476	1480	1456	1433	1423	1402	1380	1341	1294	1242	1227	1267	1304	1367	1401	1449	26	1475	0.9999	
	21	1414	1401	1391	1398	1402	1421	1438	1440	1443	1420	1397	1371	1345	1365	1360	1314	1285	1233	1234	1267	1325	1391	1430	1437	1372	37	1409	1.0002	
	22	1445	1400	1382	1392	1398	1422	1444	1435	1428	1379	1330	1335	1340	1347	1310	1285	1222	1155	1062	1042	1092	1182	1244	1289	1307	38	1345	0.9999	
	23	1290	1318	1380	1352	1320	1329	1337	1346	1357	1338	1320	1300	1280	1253	1276	1237	1190	1123	1079	1068	1112	1199	1242	1270	1263	27	1290	1.0001	
	24	1269	1261	1267	1274	1277	1272	1266	1255	1245	1235	1225	1222	1220	1212	1205	1180	1135	1068	980	975	1051	1160	1230	1262	1198	50	1248	1.0001	
	25	1260	1278	1259	1248	1233	1227	1220	1209	1199																				
	26											1209	1220	1215	1210	1210	1210	1192	1159	1110	1060	1039	1058	1098	1148	1180	1185	68	1253	1.0001
	27	1210	1210	1217	1210	1200	1202	1202	1201	1201	1194	1187	1171	1155	1140	1130	1120	1050	1035	1040	1036	1080	1110	1159	1172	1151	79	1230	1.0001	
	28	1160	1162	1168	1176	1180	1193	1205	1190	1176	1183	1190	1180	1170	1160	1140	1093	1053	1011	965	974	1048	1129	1190	1210	1138	84	1222	1.0001	
	29	1207	1191	1186	1198	1206	1204	1200	1214	1230	1208	1187	1186	1185	1180	1160	1130	1094	1060	1012	1009	1068	1110	1180	1201	1159	80	1239	1.0001	
	30	1182	1180	1187	1191	1192	1189	1184	1181	1180	1177	1175	1167	1160	1152	1147	1120	1079	1030	984	999	1060	1149	1200	1217	1145	73	1218	1.0001	
	31	1188	1177	1183	1186	1186	1194	1200	1197	1195	1192	1190	1187	1185	1180	1149	1090	1029	969	952	969	1029	1112	1167	1186	1137	50	1187	1.0001	
Means.....		1234	1241	1237	1241	1242	1243	1242	1243	1248	1238	1229	1223	1219	1212	1205	1180	1146	1102	1055	1048	1082	1150	1193	1228	1195				
Temp. Corrections		24	27	37	40	42	46	49	52	54	55	54	57	58	64	74	79	77	70	59	51	39	29	25	22	.....	49			
Corrected Means..		1258	1268	1274	1281	1284	1289	1291	1295	1302	1293	1283	1280	1277	1276	1279	1259	1223	1172	1114	1099	1121	1179	1218	1250	.....	1244			
Mean Hourly Variations from General Monthly Mean.		-14	-24	-30	-37	-40	-45	-47	-51	-58	-49	-39	-36	-33	-32	-35	-15	21	72	130	145	123	65	26	-6	.....	1 + $\frac{\Delta X}{X}$ =	.....	1.0001	
		-0116	-0108	-0248	-0306	-0331	-0372	-0389	-0422	-0479	-0405	-0323	-0298	-0273	-0265	-0289	-0124	0173	0596	1074	1199	1018	0537	0215	-0050	.....				
JANUARY 1851. Temperature of Horizontal Force Magnetometer.	+1	790	790	788	786	785	783	781	780	780	779	779	776	773	771	770	769	769		775		781		786						
	+2	787		783	782	781	778	775	772	770				766		763		765		770		777		780						
	+3	782		778	777	777	774	772	771	771				770		768		768		772		780		786						
	+4	787		782	781	781	780	780	777	775																				
	+5																													
	+6	789		785	784	783	782	781	780	780				780		775		771		779		783		788						
	7	789	788	786	784	783	781	780	780	780	780	780	780	780	780	777	776	776	777	779	782	788	791	792	793	7826				
	8	792	791	788	786	785	784	784	782	780	780	780	780	780	780	777	775	775	778	780	781	786	788	790	791	7830				
	9	791	789	787	785	784	782	780	778	777	778	779	778	778	776	774	770	773	773	778	780	785	788	790	793	7811				
	10	793	790	789	787	786	785	785	783	781	781	781	780	780	777	775	772	775	778	780	785	790	794	796	796	7841				
	11	796	794	784	784	784	783	782	783	785																				
	12											787	790	790	788	785	783	785	788	790	790	794	798	800	800	7889				
	13	802	800	797	797	797	796	795	793	792	791	791	790	790	790	788	787	788	789	792	795	798	802	802	803	7944				
	14	804	803	802	801	800	800	800	799	798	798	798	798	798	797	793	791	793	797	800	800	803	807	807	808	7998				
	15	808	807	803	802	802	801	800	800	800	799	799	799	799	797	794	793	794	794	799	800	802	806	807	808	8005				
	16	807	807																											

N. B.—Decreasing numbers denote an increase in the Horizontal Force. In the upper table the number are tenths of scale divisions in the lower table tenths of Fahrenheit degrees, and in the Means, hundredths of degrees.

* The numbers in these columns are not observed ; but interpolated for the sake of obtaining the daily Means and those numbers on the heads of them are the corrections of Interpolations.

† The observation from 1st to 6th are rejected from the hourly and daily Means.

Zero for Ther. $80^{\circ}5$ or Standard $80^{\circ}0$.

Göttingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras Mean Time.		P. M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
		4:41	5:41	6:41	7:41	8:41	9:41	10:41	11:41	12:41	13:41	14:41	15:41	16:41	17:41	18:41	19:41	20:41	21:41	22:41	23:41	0:41	1:41	2:41	3:41					
		s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.				
					5.9		0.9		4.7		1.7		-1.9																	
		1	1174	1160	1192	1217	1231	1251	1270	1284	1289																			
		2	—	—	—	—	—	—	—	—	—	1251	1209	1194	1182	1174	1130	1070	987	936	909	960	1049	1140	1215	1260	1156	41	1197	1001994
		3	1256	1260	1262	1273	1272	1265	1257	1246	1225	1223	1217	1206	1198	1182	1131	1038	927	839	827	907	1040	1134	1210	1235	1151	46	1197	1994
		4	1210	1170	1172	1186	1188	1188	1186	1193	1190	1194	1194	1179	1167	1152	1113	1044	970	893	843	878	948	1028	1100	1150	1106	62	1168	2234
		5	1160	1140	1149	1160	1160	1162	1163	1137	1102	1099	1092	1140	1192	1172	1154	1073	980	886	827	883	1057	1187	1245	1290	1109	81	1190	2052
		6	1290	1270	1240	1251	1250	1241	1230	1235	1230	1224	1215	1207	1203	1199	1171	1152	1029	979	915	927	983	1085	1130	1180	1160	85	1245	1597
		7	1193	1170	1163	1185	1195	1207	1217	1212	1198	1189	1176	1168	1163	1162	1129	1053	983	901	834	843	901	1004	1140	1170	1106	80	1186	2083
		8	1160	1147	1153	1167	1170	1173	1175	1176	1167	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		9	—	—	—	—	—	—	—	—	—	1199	1227	1224	1224	1190	1201	1168	1110	1072	1021	1031	1041	1100	1160	1200	1152	70	1222	1787
		10	1240	1220	1209	1227	1233	1252	1270	1248	1217	1200	1179	1183	1190	1218	1200	1211	1192	1144	1078	1088	1113	1180	1210	1222	1197	57	1254	1523
		11	1240	1250	1243	1256	1257	1259	1260	1265	1260	1252	1240	1230																

* The numbers in these columns are not observed; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the Corrections of interpolations.

$$k = a. \cot. v = 0.0003139 \times \cot. 75.14 = 0.00008274.$$

s.d.
3.3963 = Correction for 1 Faht. Zero for Magnetometer 1431 at Ther. 80.3 or Corrected Zero 1438.

Zero for Thermometer 80.5 or Standard 80.0.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	1 + $\frac{\Delta X}{X}$		
Madras Mean Time.	P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41						
MARCH 1851. Horizontal Force Magnetometer.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.					
				4.8 *		-0.4 *		-0.7 *		0.2 *		-1.7 *																		
	1	1270	1280	1278	1292	1297	1289	1281	1280	1280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1229	10	1239	1.001646	
	2	—	—	—	—	—	—	—	—	—	1280	1280	1254	1232	1276	1261	1215	1147	1085	1040	1078	1098	1159	1250	1299	1229	21	1231	1713	
	3	1312	1345	1277	1284	1282	1291	1300	1276	1254	1247	1240	1225	1213	1200	1180	1120	1045	1110	1040	1041	1104	1180	1230	1240	1210	-4	1188	2069	
	4	1221	1211	1232	1247	1252	1257	1262	1261	1261	1260	1260	1251	1246	1237	1210	1155	1080	1110	970	988	1056	1147	1207	1232	1192	-9	1172	2200	
	5	1234	1225	1236	1248	1250	1257	1264	1260	1258	1245	1232	1226	1223	1217	1200	1140	1100	1000	960	971	1041	1140	1207	1220	1181	-20	1130	2548	
	6	1210	1210	1222	1232	1232	1237	1242	1238	1235	1229	1222	1215	1211	1194	1177	1110	1030	930	865	903	988	1089	1170	1202	1150	-50	1156	2333	
	7	1227	1208	1237	1243	1240	1249	1258	1254	1251	1253	1255	1246	1240	1262	1230	1190	1080	1023	1000	1090	1127	1202	1257	1310	1206				
	8	1328	1320	1306	1308	1301	1298	1295	1302	1310	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	10	1250	1260	1272	1306	1330	1344	1358	1361	1366	1363	1360	1348	1340	1317	1288	1220	1140	1085	1070	1082	1120	1199	1276	1331	1266	-53	1185	2093	
	11	1387	1404	1389	1383	1367	1372	1378	1385	1393	1384	1375	1347	1323	1339	1338	1325	1258	1160	1150	1182	1225	1300	1390	1382	1331	-52	1214	1853	
	12	1368	1380	1391	1411	1422	1415	1408	1388	1370	1345	1320	1314	1312	1307	1280	1240	1200	1160	1160	1188	1210	1270	1314	1365	1314	-78	1253	1531	
	13	1332	1330	1339	1353	1357	1364	1371	1360	1350	1341	1332	1316	1303	1295	1281	1240	1178	1120	1100	1100	1170	1250	1281	1300	1282	-87	1227	1746	
	14	1297	1284	1308	1334	1351	1361	1372	1341	1312	1317	1322	1297	1275	1267	1250	1180	1175	1150	1090	1110	1178	1230	1297	1305	1267	-83	1199	1977	
	15	1373	1357	1362	1372	1372	1366	1360	1350	1342	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-64	1203	1944
	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	17	1290	1281	1292	1305	1309	1314	1319	1315	1312	1300	1288	1278	1272	1265	1240	1183	1100	1023	978	1010	1077	1180	1227	1280	1227	-68	1189	2060	
	18	1287	1272	1273	1288	1294	1297	1300	1292	1285	1282	1279	1272	1269	1258	1240	1185	1090	1010	970	980	1040	1120	1200	1253	1210	-66	1161	2292	
	19	1275	1270	1262	1278	1284	1288	1293	1285	1279	1276	1273	1270	1270	1272	1260	1178	1082	993	958	954	1004	1094	1160	1220	1199	-70	1140	2466	
	20	1209	1242	1267	1333	1390	1433	1476	1446	1418	1399	1380	1364	1351	1330	1310	1270	1200	1140	1105	1130	1180	1247	1320	1370	1305	-92	1107	2739	
	21	1380	1351	1280	1310	1330	1325	1320	1307	1296	1293	1290	1287	1288	1283	1315	1277	1198	1100	1050	1080	1155	1230	1282	1309	1264	-122	1183	2110	
	22	1340	1333	1358	1389	1411	1397	1383	1397	1413	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-153	1111	2706
	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	24	1340	1350	1348	1355	1352	1360	1369	1371	1374	1358	1342	1342	1346	1340	1305	1275	1187	1090	1060	1140	1182	1240	1310	1349	1295	-163	1137	2491	
	25	1348	1340	1332	1357	1372	1378	1385	1367	1350	1346	1342	1330	1322	1318	1310	1270	1198	1110	1062	1080	1142	1208	1270	1300	1285	-149	1146	2416	
	26	1325	1314	1319	1332	1336	1332	1329	1319	1310	1305	1300	1311	1325	1270	1260	1250	1180	1072	1005	1036	1098	1201	1257	1290	1253	-135	1150	2383	
	27	1298	1281	1281	1290	1289	1280	1272	1269	1268	1264	1260	1245	1234	1224	1187	1124	1063	1002	1020	1045	1092	1157	1260	1372	1212	-114	1139	2474	
	28	1380	1370	1401	1385	1360	1366	1372	1366	1362	1371	1380	1364	1352	1331	1322	1275	1220	1175	1170	1185	1219	1280	1372	1440	1326	-120	1092	2862	
	29	1480	1400	1403	1416	1420	1421	1422	1415	1410	—	—	—	—	—	—														

$k=a. \text{ Cot. } v. = 0.0003139 \times \text{ Cot. } 75.14' = 0.00008274.$
 $3.3963 = \text{Correction for } 1^\circ \text{ Faht. Zero for Magnetometer 1431 at Ther. } 80.3^\circ \text{ or Corrected Zero } 1438.$
 $\text{Zero for Ther. } 80.5^\circ \text{ or Standard } 80.0^\circ.$

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras Mean Time.	P.M. h.m. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.42	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41					
APRIL 1851. Horizontal Force Magnetometer.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.				
				5.9		0.7		1.9		0.4		-0.7																	
				*		*		*		*		*																	
	1	1418	1400	1404	1418	1421	1426	1430	1424	1415	1408	1400	1388	1378	1372	1350	1292	1203	1116	1082	1119	1219	1322	1400	1420	1343	-175	1168	1.002234
	2	1398	1383	1387	1403	1407	1415	1422	1418	1410	1390	1370	1365	1362	1350	1331	1282	206	1134	1113	1180	1232	1300	1347	1392	1333	-171	1162	2283
	3	1400	1389	1367	1380	1382	1382	1380	1372	1360	1355	1350	1333	1317	1309	1290	1268	1202	1139	1128	1197	1264	1360	1402	1392	1322	-176	1146	2416
	4	1400	1412	1438	1453	1457	1457	1455	1429	1400	1395	1390	1367	1346	1332	1310	1262	1189	1112	1078	1080	1140	1249	1347	1390	1329	-194	1135	2507
	5	1452	1440	1423	1443	1452	1477	1500	1477	1450																			
	6										1446	1442	1428	1416	1398	1379	1342	1318	1234	1186	1182	1231	1280	1330	1371	1379	-200	1179	2143
	7	1397	1400	1391	1398	1394	1413	1430	1417	1400	1388	1375	1356	1338	1348	1334	1310	1230	1154	1117	1170	1206	1270	1321	1360	1330	-162	1168	2234
	8	1379	1380	1372	1387	1390	1376	1360	1369	1375	1363	1350	1329	1310	1308	1292	1250	1173	1110	1056	1055	1100	1192	1280	1334	1287	-144	1143	2441
	9	1348	1352	1358	1363	1357	1364	1370	1367	1360	1348	1335	1338	1342	1334	1331	1292	1249	1172	1150	1141	1210	1260	1338	1362	1310	-166	1144	2433
	10	1360	1380	1411	1429	1435	1439	1442	1428	1410	1391	1372	1362	1353	1359	1325	1270	1198	1142	1130	1163	1240	1292	1341	1360	1335	-183	1152	2366
	11	1364	1361	1363	1372	1370	1372	1373	1371	1366	1378	1390	1377	1366	1348	1330	1290	1228	1145	1220	1260	1300	1323	1400	1467	1339	-202	1137	2491
	12	1457	1442	1432	1433	1423	1417	1410	1407	1400																			
	13										1400	1399	1394	1390	1388	1378	1321	1239	1152	1113	1159	1220	1312	1377	1408	1353	-223	1130	2548
	14	1400	1395	1390	1411	1420	1419	1417	1410	1400	1400	1390	1382	1373	1362	1318	1250	1179	1152	1210	1268	1351	1401	1420	1355	-222	1133	2523	
	15	1429	1448	1460	1452	1432	1422	1410	1402	1390	1391	1392	1386	1381	1383	1352	1281	1180	1094	1089	1145	1224	1317	1390	1420	1345	-224	1121	2623
	16	1410	1391	1372	1382	1380	1382	1383	1383	1380	1385	1390	1401	1413	1386	1408	1361	1302	1213	1132	1120	1223	1311	1374	1398	1345	-228	1117	2656
	17	1420	1427	1400	1426	1441	1451	1460	1454	1445	1438	1430	1417	1405	1412	1402	1388	1279	1189	1150	1192	1244	1330	1392	1430	1376	-223	1153	2358
	18	1450	1442	1437	1444	1440	1436	1430	1417	1400	1410	1420	1411	1403	1388	1379	1320	1227	1128	1092	1162	1221	1274	1350	1397	1353	-222	1131	2540
	19	1391	1400	1413	1423	1421	1421	1420	1418	1413																			
	20										1404	1395	1387	1381	1380	1361	1315	1242	1164	1161	1192	1287	1390	1431	1480	1362	-212	1150	2383
	21	1478	1510	1476	1504	1521	1516	1510	1497	1480	1464	1448	1435	1423	1418	1390	1348	1289	1240	1220	1252	1298	1358	1410	1473	1415	-219	1196	2002
	22	1490	1470	1480	1486	1480	1480	1478	1476	1470	1456	1442	1414	1387	1392	1343	1372	1320	1260	1243	1260	1330	1405	1450	1481	1411	-240	1171	2209
	23	1510	1504	1490	1491	1480	1478	1475	1459	1440	1437	1433	1451	1470	1475	1440	1385	1332	1302	1250	1340	1365	1460	1450	1460	1432	-256	1176	2168
	24	1460	1473	1490	1511	1520	1524	1526	1515	1500	1490	1480	1473	1468	1462	1448	1395	1361	1330	1338	1380	1422	1455	1460	1462	1456	-278	1178	2152
	25	1470	1480	1475	1498	1510	1508	1505	1494	1480	1477	1473	1462	1452	1458	1445	1412	1344	1291	1273	1300	1361	1422	1472	1501	1440	-276	1164	2267
	26	1488	1479	1492	1505	1507	1503	1497	1495	1490																			
	27										1462	1434	1438	1444	1438	1430	1409	1358	1334	1392	1381	1408	1450	1440	1427	1446	-263	1183	2110
	28	1430	1440	1450	1463	1465	1460	1453	1467	1478	1487	1495	1477	1460	1442	1400	1350	1310	1260	1260	1310	1364	1415	1480	1497	1421	-263	1158	2317
29	1470	1474	1462	1472	1470	1468	1465	1467	1465	1458	1450	1452	1456	1449	1440	1419	1355	1299	1251	1260	1300	1338	1390	1420	1415	-260	1155	2341	
30	1440	1460	1447	1459																									

MADRAS, 1851.—MAGNETICAL OBSERVATIONS.

$$k = a. \text{ Cot. } v. = 00003139 \times \text{Cot. } 75^{\circ} 14' = 0.0008274.$$

s.d.
3.3963 = Correction for 1° Faht. Zero for Magnetometer 1431 at Ther. 80.3 or Corrected Zero 1438.

Zero for Ther. $80^{\circ}5$ or Standard $80^{\circ}0$.

HORIZONTAL FORCE MAGNETOMETER.

Göttingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$		
P. M.																															
Madras Mean Time.		h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.		
		4:41	5:41	6:41	7:41	8:41	9:41	10:41	11:41	12:41	13:41	14:41	15:41	16:41	17:41	18:41	19:41	20:41	21:41	22:41	23:41	0:41	1:41	2:41	3:41						
MAY 1851. Horizontal Force Manetometer.		s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.	s.d.t.		
	1	1399	1417	1411	1432	1440	1436	1430	1427	1420	1446	1472	1481	1488	1470	1440	1400	1340	1330	1370	1440	1400	1438	1400	1459	1424	-239	1185	1.002093		
	2	448	489	512	497	468	472	475	470	460	454	449	429	406	402	390	330	210	130	210	170	260	280	300	295	1375	-144	1231	1713		
	3	290	300	320	337	340	341	340	340	340	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5	230	250	266	277	275	303	330	321	308	313	318	300	279	276	233	200	098	020	020	080	122	200	239	248	1229	-58	1192	2035		
	6	248	269	305	329	340	323	305	304	298	290	283	284	283	280	250	200	145	080	050	054	120	208	266	308	1243	-57	1172	2200		
	7	320	332	331	350	355	346	335	331	322	320	318	310	300	320	288	212	136	160	102	130	210	307	389	448	1291	-74	1169	2222		
	8	499	490	531	551	558	545	530	497	460	419	378	374	368	365	300	262	230	190	190	183	225	279	322	378	1380	-104	1187	2077		
	9	402	439	444	439	420	414	407	406	400	396	392	392	390	410	380	310	285	220	192	185	205	287	359	427	1358	-135	1245	1597		
	10	472	458	480	482	470	471	471	469	462	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-179	1179	2143	
	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12	401	410	431	442	439	450	459	445	426	419	412	417	420	398	380	333	280	260	250	214	300	337	377	414	1380	-218	1172	2200		
	13	453	456	459	462	451	447	442	445	444	421	399	403	405	409	360	318	250	235	225	220	290	320	380	410	1379	-215	1165	2258		
	14	429	432	434	439	431	435	437	428	414	416	418	417	414	380	340	293	235	180	176	190	280	340	409	432	1367	-215	1164	2267		
	15	441	452	450	470	477	464	450	438	421	410	400	395	388	370	350	320	250	193	170	200	260	323	377	322	1366	-221	1146	2416		
	16	310	342	366	406	432	427	420	407	390	390	391	381	369	392	427	380	332	250	154	190	360	408	467	518	1371	-228	1138	2483		
	17	557	532	580	566	538	523	507	498	485	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-220	1151	2375	
	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	19	410	418	422	423	410	401	391	393	390	389	389	386	380	374	370	350	300	242	185	180	212	272	340	400	1351	-216	1188	2069		
	20	428	422	420	422	410	412	413	408	398	389	381	385	387	378	375	347	290	200	173	190	216	268	322	370	1350	-210	1141	2458		
	21	400	413	401	404	393	389	383	384	380	380	380	382	381	382	390	368	303	250	208	186	195	219	267	310	1340	-210	1140	2466		
	22	349	359	350	354	345	347	348	346	339	333	327	320	310	300	293	270	230	165	120	090	190	250	311	363	1292	-213	1127	2573		
	23	400	400	391	405	405	399	392	393	390	384	378	378	376	370	368	355	330	298	268	260	202	235	300	321	1350	-223	1069	3053		
	24	346	358	350	362	360	365	369	364	355	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-237	1113	2689	
	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	26	281	294	310	317	310	314	317	318	314	318	322	319	313	312	310	298	260	245	230	206	172	227	259	280	1288	-172	1116	2664		
	27	330	330	331	340	335	332	328	331	330	326	322	322	320	313	290	255	200	164	160	175	210	260	309	340	1298	-154	1144	2433		
	28	360	362	352	358	350	349	347	346	341	340	339	356	370	330	290	235	192	162	130	180	225	294	332	350	1290	-163	1127	2573		
29	353	350	350	355	347	349	350	349	343	342	342	341	338	332	330	312	282	230	210	220	270	325	356	372	1304	-201	1103	2772			
30	376	370	370	375	367	365	361	362	359	356	354	349	342	342	332	330	260	239	198	200	210	280	320	356	1323	-223	1100	2797			
																										1324	-248	1076	2995		
Means.....		1382	1390	1399	1407	1403	1401	1398	1393	1384	1378	1371	1369	1364	1358	1339	1302	1245	1196	1175	1184	1230	1284	1330	1363	1335					
Temp. Corrections		-214	-210	-202	-197	-194	-190	-187	-185	-183	-176	-169	-163	-159	-155	-157	-158	-161	-167	-176	-186	-195	-202	-210	-212	.....	-184				
Corrected Means..		1168	1180	1197	1210	1209	1211	1211	1208	1201	1202	1202	1206	1205	1203	1182	1144	1084	1029	999	998	1035	1082	1120	1151	.....	.....	1151			
Mean Hourly Variations from General Monthly Mean.		-17	-29	-46	-59	-58	-60	-60	-57	-50	-51	-51	-55	-54	-52	-31	7	67	122	152	153	116	69	31	0	.....	$1 + \frac{\Delta X}{X} =$	.....	1.002375		
		-0141	-0240	-0381	-0488	-0480	-0496	-0496	-0472	-0414	-0422	-0422	-0455	-0447	-0431	-0256	-0058	0554	1010	1258	1266	0960	0571	0256	0000	.....					
MAY 1851. Temperature of Horizontal Force Magnetometer.																															
	1	889	888	887	885	883	882	881	880	880	878	877	873	870	871	872	872	872	873	873	873	870	862	860	858	8754					
	2	857	852	850	850	850	851	852	853	855	853	852	850	849	847	848	846	844	843	842	842	840	838	838	837	8475					
	3	836	835	834	832	830	830	830	830	830	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	4	—	—	—	—	—	—	—	—	—	825	820	820	820	820	818	816	813	810	810	810	812	816	817	817	8221					
	5	820	820	820	821	822	822	822	821	821	819	818	817	816	814	815	816	818	820	822	828	830	832	835	834	8218					
	6	831	830	829	828	827	826	826	825	824	823	822	821	820	819	820	820	820	823	826	830	835	837	839	839	8267					
	7	839	839	838	837	836	835	835	834	834	833	832	831	830	829	830	832	833	834	834	836	837	840	847	849	8356					
	8	850	850	848	846	845	843	842	842	842	841	840	839	838	836	837	838	840	840	843	848	850	854	859	862	8447					
	9	867	865	861	860	859	858	857	856	856	853	851	850	849	847	848	849	850	851	855	859	863	870	874	874	8576					
	10	878	878	874	872	870	870	870	869	868	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	11	—	—	—	—	—	—	—	—	—	868	868	864	861	860	860	860	860	862	867	870	874	877	879	880	8691					
	12	880	880	879	877	875	873	872	871	870	867	864	862	860	858	859	860	860	861	862	863	867	870	872							

* The numbers in these columns are not observed ; but interpolated for the sake of obtaining the daily Means and those numbers on the heads of them are the Corrections of interpolations.

$$k = a. \cot. v = 0.0003139 \times \cot. 75.14 = 0.00003274.$$

$$3.3963 = \text{Correction for } 1 \text{ Faht. Zero for Magnetometer 1431 at Ther. } 80.3 \text{ or Corrected Zero } 1438.$$

$$\text{Zero for Thermometer } 80.5 \text{ or Standard } 80.0.$$

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$		
Madras Mean Time.	P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41	Means.					
JUNE 1851. Horizontal Force Magnetometer.	May 31	1370	1360	1360	1366	1368	1370	1368	1370	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1319	-273	1046	1.003243	
	1	—	—	—	—	—	—	—	—	1360	1348	1346	1345	1344	1340	1332	1288	1230	1186	1178	1194	1240	1292	1340	1316	-311	1005	3582		
	2	350	362	364	365	363	365	366	363	363	372	380	367	356	352	350	330	290	170	153	150	188	230	292	340	1316	-299	1040	3293	
	3	350	355	358	361	360	362	363	365	370	370	368	364	361	360	350	342	331	310	280	250	240	290	330	357	1339	-301	1065	3086	
	4	387	400	405	400	392	393	392	389	390	387	383	381	380	380	382	378	361	308	285	265	295	330	350	380	1366	-277	1110	2714	
	5	391	388	390	395	397	386	374	379	388	390	390	384	380	380	375	370	405	390	360	370	372	397	415	430	1387	-292	1112	2697	
	6	450	457	459	450	437	432	426	423	423	424	423	416	410	412	412	411	392	370	300	292	330	370	385	407	1404	-319	1089	2887	
	7	429	420	432	436	436	435	432	429	429	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1408	-307	1116	2664	
	8	—	—	—	—	—	—	—	—	—	422	413	411	410	400	400	392	380	370	358	370	380	393	400	410	1408	-305	1144	2433	
	9	415	420	431	432	430	430	429	433	441	438	433	435	439	432	430	420	413	401	400	400	393	405	420	428	1423	-328	1120	2631	
	10	430	447	490	499	512	527	540	530	523	511	497	492	488	464	456	440	390	315	270	280	340	380	451	513	1449	-316	1118	2648	
	11	521	528	539	527	512	511	508	495	485	484	482	475	470	460	438	410	363	310	300	323	330	377	430	481	1448	-312	1142	2449	
	12	517	525	517	507	493	486	478	474	473	474	474	457	442	435	430	404	428	322	288	290	302	348	404	453	1434	-283	1135	2507	
	13	480	499	510	504	495	483	470	458	450	443	435	424	415	420	427	408	382	400	412	382	440	503	530	537	1454	-251	1108	2731	
	14	552	539	518	521	521	516	510	504	502	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1418	-236	1120	2631	
	15	—	—	—	—	—	—	—	—	—	477	450	440	432	408	388	348	272	268	228	248	290	322	368	398	1418	-261	1106	2747	
	16	431	440	441	437	429	435	440	423	410	415	418	408	400	390	360	340	287	213	200	170	190	248	319	381	1359	-290	1103	2772	
	17	439	441	457	446	432	428	422	415	411	409	405	402	400	390	361	322	267	184	140	160	191	254	352	415	1356	-234	1106	2747	
	18	430	440	440	444	445	439	431	420	413	407	400	407	416	410	388	352	300	244	199	188	218	270	319	391	1367	-206	1105	2755	
	19	448	461	463	468	470	466	460	456	455	455	453	441	430	420	410	382	327	266	230	211	238	280	346	402	1393	-210	1094	2846	
	20	435	440	437	434	428	426	423	418	416	410	402	400	400	380	350	336	295	260	279	291	309	341	370	410	1379	-232	1078	2979	
	21	431	450	472	461	447	442	436	416	399	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1320	-246	1074	3012
	22	—	—	—	—	—	—	—	—	—	365	329	349	370	366	350	290	213	155	142	158	202	238	307	370	1340	-248	1126	2581	
	23	404	410	400	393	383	376	368	358	352	352	350	343	338	329	298	257	210	160	130	140	190	260	312	350	1311	-232	1078	2979	
	24	355	352	347	349	347	345	342	339	340	340	338	336	335	324	308	272	243	200	172	170	200	250	317	375	1304	-206	1105	2755	
	25	400	410	398	391	380	380	378	369	363	379	394	365	338	318	298	281	250	210	120	100	135	188	267	329	1310	-210	1094	2846	
	26	360	341	360	364	365	369	371	375	383	377	370	344	319	310	289	248	220	249	240	260	260	270	310	330	1320	-232	1078	2979	
	27	364	371	395	417	435	434	432	419	410	412	413	412	412	398	351	338	317	307	300	290	288	310	350	400	1374	-246	1074	3012	
	†28	430	437	440	437	430	430	428	423	422	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	†29	—	—	—	—	—	—	—	—	—	403	382	375	370	360	328	289	318	200	re-adjusted.					—	—	—	—		
	†30	456	435	421	420	415	404	391	396	405	399	392	389	387	388	340	297	250	221	230	250	296	347	398	423	1374	-248	1126	2581	
Means.....	1422	1427	1433	1432	1428	1427	1423	1417	1415	1411	1406	1400	1395	1387	1373	1350	1318	1276	1249	1247	1271	1312	1360	1401	1374	.....	-276	.....	.....	
Temp. Corrections	-315	-311	-303	-297	-293	-287	-282	-274	-269	-262	-256	-253	-251	-246	-242	-242	-246	-252	-263	-275	-285	-294	-306	-312	.....	.....				

MADRAS, 1851.—MAGNETICAL OBSERVATIONS.

$$k = a. \text{ Cot. } v. = 0.0003139 \times \text{Cot. } 75.15 = 0.00008264.$$

s.d.
3.3963 = Correction for 1° Faht.

Zero for Magnetometer 1497 at Ther. 88.8° or Corrected Zero 1215.

Zero for Ther. $80^{\circ}5$ or Standard $80^{\circ}0$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	1 + $\frac{\Delta X}{X}$	
Madras Mean Time.		P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					h.m.
		4:41	5:41	6:41	7:41	8:41	9:41	10:41	11:41	12:41	13:41	14:41	15:41	16:41	17:41	18:41	19:41	20:41	21:41	22:41	23:41	0:41	1:41	2:41	3:41					
JULY 1851. Horizontal Force Magnetometer.					3.1 *		1.1 *		-1.3 *		2.1 *		-0.2 *																	
	1	1436	1431	1422	1420	1411	1400	1386	1389	1395	1395	1390	1387	1385	1373	1345	1297	1245	1190	1158	1137	1190	1240	1300	1342	1336	-241	1095	1.000991	
	2	380	402	385	381	371	356	338	345	355	350	340	337	335	330	315	296	284	210	240	200	253	259	295	352	1321	-246	1075	1157	
	3	413	451	517	540	557	524	488	458	430	417	400	397	395	390	390	373	337	288	270	364	340	354	420	470	1416	-255	1161	0447	
	4	500	463	458	443	423	426	427	414	403	396	385	382	380	373	370	396	336	300	190	161	178	235	293	345	1362	-211	1151	0529	
	5	386	385	378	374	363	363	360	353	348																				
	6											341	330	322	315	305	290	257	234	174	155	160	168	227	265	290	1298	-159	1139	062
	7	314	329	328	317	299	299	297	292	290	285	275	272	270	270	250	212	190	150	136	143	181	220	273	322	1259	-140	1119	0793	
	8	327	296	282	278	268	261	252	247	245	245	240	238	237	232	230	217	182	140	185	177	137	183	260	310	1236	-160	1076	1149	
	9	322	317	300	309	312	324	333	335	340	327	310	302	295	280	260	227	194	178	132	117	168	214	244	268	1267	-170	1097	0975	
	10	298	310	318	314	304	305	303	303	305	305	300	295	290	276	230	210	160	125	180	182	201	249	293	315	1265	-168	1097	0975	
	11	326	325	320	325	324	324	322	315	310	302	290	290	290	285	260	250	215	178	135	118	176	193	250	316	1268	-169	1099	0958	
	12	372	340	311	313	308	304	297	286	277																				
	13										279	277	268	260	248	230	220	196	190	165	130	140	160	200	238	1250	-145	1105	0909	
	14	250	286	294	296	292	318	341	359	380	381	378	369	360	360	318	270	230	198	280	320	330	362	393	408	1324	-138	1186	0240	
	15	410	400	390	389	382	387	390	384	380	382	380	374	368	350	328	300	290	252	210	300	335	330	333	340	1349	-136	1213	0016	
	16	349	340	338	341	338	338	335	331	330	330	327	323	320	305	248	205	164	098	025	065	135	145	192	242	1257	-142	1115	0826	
	17	240	293	304	306	301	325	347	324	304	304	300	294	288	265	291	308	300	249	153	107	114	155	216	300	1266	-143	1123	0760	
	18	497	459	362	372	375	349	320	314	310	309	303	301	300	300	305	261	250	175	125	085	159	220	263	310	1293	-134	1159	0463	
	19	363	380	377	380	377	373	367	362	360																				
	20										352	340	337	335	330	330	295	247	168	118	127	150	190	240	292	1300	-152	1148	0554	
	21	322	330	320	322	318	317	314	313	315	315	310	305	300	294	290	272	220	160	116	087	110	163	210	238	1261	-140	1121	0777	
	22	288	291	288	286	278	279	278	299	322	313	300	289	278	265	252	243	215	185	120	142	179	203	252	295	1256	-146	1110	0868	
	23	307	310	292	301	304	297	288	283	280	277	270	272	275	270	242	219	221	148	122	120	156	178	240	266	1247	-138	1109	0876	
	24	295	307	305	309	306	310	312	301	292	288	280	269	258	245	230	188	155	120	130	140	180	229	256	297	1250	-160	1090	1033	
	25	303	300	289	293	290	291	289	281	275	270	260	260	260	245	240	185	140	098	072	138	200	249	268	281	1241	-176	1055	1239	
	26	290	310	342	360	372	356	337	330	326																				
	27										310	290	292	295	290	273	240	197	155	130	142	203	252	290	310	1279	-181	1098	0967	
	28	326	322	320	317	308	300	290	288	288	286	280	277	274	270	252	236	220	160	115	096	124	190	253	277	1253	-196	1057	1306	
	29	360	342	364	384	398	349	298	310	324	324	320	346	372	360	353	328	273	230	197	163	228	268	350	380	1318	-204	1114	0835	
	30	410	392	375	375	368	361	352	337	325	326	322	316	310	310	295	290	260	205	132	117	131	187	240	300	1293	-180	1113	0843	
31	342	370	361	353	338	328	316	316	318	318	313	311	310	305	293	257	215	174	115	095	120	171	216	261	1272	-166	1106	0901		
Means.....		1349	1351	1346	1348	1344	1339	1332	1328	1327	1323	1315	1312	1309	1301	1286	1261	1229	1181	1152	1153	1185	1223	1271	1310	1286				
Temp. Corrections		-197	-194	-188	-184	-182	-176	-171	-167	-165	-161	-159	-156	-154	-151	-149	-147	-149	-154	-163	-170	-178	-185	-190	-194	.....	-170			
Corrected Means..		1152	1157	1158	1164	1162	1163	1161	1161	1162	1162	1156	1156	1155	1150	1137	1114	1080	1027	989	983	1007	1038	1081	1116	.....	.....	1116		
Mean Hourly Variations from General Monthly Mean.		-36	-41	-42	-48	-46	-47	-45	-45	-46	-46	-40	-40	-39	-34	-21	2	36	89	127	133	109	78	35	0	.....	1 + $\frac{\Delta X}{X}$ =	.....	1.000818	
		-0298	-0339	-0348	-0397	-0381	-0389	-0372	-0372	-0381	-0381	-0331	-0331	-0323	-0281	-0173	-0017	-0298	-0738	-1050	-1099	-0991	-0614	-0289	-0000	.....				
JULY 1851. Temperature of Horizontal Force Magnetometer.				*		*		*		*		*		*																
	1	885	885	882	880	878	875	873	873	872	872	871	871	870	870	870	871	873	878	878	880	880	883	882	8760					
	2	884	883	883	881	880	878	876	874	873	872	872	872	870	870	870	874	875	880	880	881	883	885	888	8773					
	3	888	888	884	884	884	881	879	878	878	877	877	875	874	872	872	873	874	877	880	880	884	889	889	889	8802				
	4	882	875	875	875	875	873	872	869	866	864	863	861	860	860	860	858	858	860	863	862	868	869	870	870	8670				
	5	870	868	864	861	858	856	855	855	855																				
	6										852	850	848	846	846	844	843	843	844	844	846	849	849	849	850	8519				
	7	850	850	850	848	847	845	844	843	842	841	841	840	840	840	840	840	844	848	849	853	857	858	858	8462					
	8	857	852	852	851	851	850	850	850	850	850	850	850	848	847	846	848	850	854	855	858	860	860	861	8521					
	9	861	861	861	860	860	859	858	857	856	855	854	852	851	850	850	849	850	850	852	852	855	858	858	857	8552				
	10	858	858	857	855	854	853	853	852	851	851	851	850	850	850	849	848	850	851	856	858	860	864	864	867	8546				
	11	863	861	860	860	860	859	859	858	857	854	852	851	850	850	850	849	848	848	849	850	850	856	859	860	8547				
	12	859	858	856	853	851	850	850	849	849																				
	13										847	845	844	843	842	841	840	840	840	842	845	847	848	850	853	8476				
	14	852	852	852	850	848	846	845	843	841	840	840	840	840	840	840	840	840	843	848	848	850	852	854	854	8457				
	15	854	855	852	850	849	847	845	843	841	841	841	840	840	840	840	840	840	842	846	848	849	850	850	850	8451				
	16	850	850	850	850	850	849																							

* The numbers in these columns are not observed; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the corrections of interpolations.

$$k=a. \text{Cot.} v. = 0.0003139 \times \text{Cot. } 75^{\circ} 15' = 0.00008264.$$

$$\frac{s.d.}{3.3963} = \text{Correction for } 1^{\circ} \text{ Faht. Zero for Magnetometer 1497 at Ther. } 88.8^{\circ} \text{ or Corrected Zero } 1215.$$

$$\text{Zero for Ther. } 80.5^{\circ} \text{ or Standard } 80.0^{\circ}.$$

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	1 + $\frac{\Delta X}{X}$	
Madras Mean Time.		P.M. h.m. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.42	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41					
AUGUST 1851. Horizontal Force Magnetometer.	1	1319	1368	1349	1352	1347	1342	1336	1332	1330	1324	1320	1317	1315	1300	1295	1260	1215	1168	1105	1054	1061	1140	1216	1274	1268	-174	1094	1.001000	
	2	319	357	352	352	344	343	340	337	336	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	4	430	404	380	388	388	378	366	364	364	356	350	344	340	335	330	315	290	253	210	186	209	260	280	324	1322	-197	1125	0743	
	5	353	360	355	358	353	357	359	353	348	335	325	330	337	330	325	320	310	282	290	295	310	360	395	421	1327	-203	1124	0752	
	6	430	425	423	428	424	414	402	390	380	374	370	372	375	350	330	348	330	330	342	367	413	457	492	485	1340	-209	1131	0694	
	7	500	510	476	469	453	451	448	431	415	416	420	415	412	410	380	330	308	275	260	282	292	310	339	345	1389	-234	1160	0455	
	8	350	367	393	394	387	387	386	384	384	381	380	368	357	350	345	320	304	274	242	270	255	270	290	321	1394	-212	1177	0314	
	9	350	377	389	400	402	402	401	394	388	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	11	305	317	370	375	371	376	379	369	360	342	327	310	295	275	265	270	230	244	240	190	227	251	275	310	1311	-178	1133	0677	
	12	320	335	327	338	340	341	340	330	322	318	317	305	295	290	280	238	169	120	082	072	094	160	227	289	1303	-162	1141	0612	
	13	322	337	295	308	312	313	313	311	310	307	306	302	300	300	290	268	220	175	134	159	156	190	215	260	1260	-152	1108	0885	
	14	317	350	362	353	335	323	310	299	290	284	280	265	252	255	233	250	192	162	150	162	149	140	170	218	1267	-161	1106	0901	
	15	281	320	316	321	317	314	309	303	298	289	283	278	275	265	260	256	230	198	170	150	158	187	230	268	1255	-153	1102	0933	
	16	300	306	305	309	305	304	302	299	298	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1262	-172	1090	1033
	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	18	272	290	288	284	272	266	259	250	242	225	210	207	205	200	213	200	150	110	102	120	118	150	212	262	1255	-157	1098	0967	
	19	279	281	288	294	292	288	282	280	280	274	270	257	245	240	234	211	184	153	142	161	170	200	220	232	1213	-142	1071	1190	
	20	235	241	243	243	235	238	239	233	228	225	225	222	220	205	185	170	146	120	160	179	222	280	275	281	1240	-127	1113	0843	
	21	270	300	361	344	318	303	286	285	285	272	262	260	260	255	248	232	220	195	207	200	210	200	225	240	1219	-124	1095	0991	
	22	250	272	289	301	305	296	286	276	268	263	260	254	250	245	231	220	206	190	182	167	180	200	233	250	1260	-122	1138	0637	
	23	260	262	276	294	303	292	279	278	279	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1245	-123	1122	0768
	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	25	355	380	383	379	366	364	361	363	366	354	345	339	335	340	308	270	210	150	168	172	203	257	300	346	1336	-130	1206	0074	
	26	360	353	349	349	340	340	338	333	330	324	320	311	304	308	323	282	210	165	124	148	150	209	260	337	1309	-134	1175	0330	
	27	372	363	355	364	365	354	342	341	341	330	322	320	320	320	305	278	233	195	150	149	169	190	240	287	1286	-131	1155	0496	
	28	329	339	328	334	332	331	329	324	321	322	325	321	318	305	285	268	218	170	140	161	190	210	222	237	1292	-144	1148	0554	
	29	258	270	263	288	305	303	300	308	318	310	305	317	330	310	312	303	254	212	133	125	104	150	260	319	1277	-150	1127	0727	
	30	320	320	327	359	379	388	395	384	374	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1265	-148	1117	0810
	31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Means.....	1325	1339	1340	1345	1342	1339	1334	1329	1325	1322	1320	1315	1312	1304	1294	1273	1237	1204	1187	1187	1202	1234	1274	1305	1291	.....	-161	.....	.....	
Temp. Corrections	-189	-186	-178	-174	-171	-168	-165	-162	-159	-154	-151	-148	-147	-144	-138	-134	-137	-142	-149	-158	-167	-								

$$k = a. \text{Cot. } v = 0.0003139 \times \text{Cot. } 75^\circ 15' = 0.00008264.$$

$$\frac{s.d.}{3.3963} = \text{Correction for } 1^\circ \text{ Faht. Zero for Magnetometer 1497 at Ther. } 88.8^\circ \text{ or Corrected Zero } 1215.$$

$$\text{Zero for Ther. } 80.5^\circ \text{ or Standard } 80.0^\circ.$$

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras Mean Time.		P. M. 4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
SEPTEMBER 1851. Horizontal Force Magnetometer.	1	1398	1400	1374	1390	1399	1390	1379	1382	1380	1371	1360	1357	1357	1345	1330	1305	1268	1220	1198	1172	1220	1300	1371	1403	1336	-182	1154	1.000504	
	2	437	410	453	465	469	453	434	434	428	400	370	363	360	360	342	317	280	253	231	226	218	248	292	370	1359	-197	1162	0.438	
	3	360	358	399	434	461	452	440	431	417	410	400	391	385	352	317	305	310	412	325	662	942	2122	2093	2034	1509	-198	1311	0.999207	
	4	922	998	922	924	919	938	955	811	662	705	745	705	668	660	630	568	520	478	472	477	460	1489	1556	1550	1697	-220	1477	7835	
	5	539	540	548	558	560	551	540	535	525	524	520	523	530	510	508	462	402	350	311	279	302	358	427	501	1475	-208	1267	9580	
	6	528	499	490	509	521	512	500	493	480																				
	7										599	715	716	720	735	720	740	667	708	719	688	729	786	769	746	1637	-210	1427	8248	
	8	740	698	696	678	653	656	656	658	655	643	628	612	600	593	540	533	503	465	518	510	528	552	590	618	1605	-220	1385	8595	
	9	610	594	590	592	586	587	585	575	560	561	560	558	540	534	532	502	489	378	319	308	352	414	489	532	1512	-217	1295	9339	
	10	540	521	527	512	490	499	505	520	530	526	520	513	510	510	487	438	385	342	318	329	339	397	458	1468	-222	1246	9744		
	11	466	462	446	477	500	506	510	509	502	492	480	473	470	470	465	420	361	166	128	172	308	397	488	569	1427	-224	1203	1.000099	
	12	588	561	523	518	505	500	492	489	480	490	498	487	480	460	468	447	378	300	257	269	310	359	400	438	1446	-222	1224	0.999926	
	13	448	429	436	445	446	457	465	460	450																				
	14										451	450	441	435	420	413	387	320	278	220	229	247	319	342	388	1391	-221	1170	1.000372	
	15	425	439	437	442	440	461	480	501	517	501	483	480	480	475	464	400	339	290	308	332	366	410	432	448	1431	-217	1214	0.008	
	16	427	414	431	442	445	441	435	440	440	439	435	441	450	400	400	426	361	323	267	260	300	362	428	440	1402	-198	1204	0.091	
	17	448	449	439	446	446	439	430	417	390	404	415	406	400	400	403	400	322	275	216	188	210	262	328	388	1372	-198	1174	0.339	
	18	394	387	384	395	398	405	410	399	382	382	380	376	375	370	365	320	257	210	188	196	221	260	316	364	1339	-192	1147	0.562	
	19	370	376	410	424	430	416	399	402	400	404	405	396	390	390	393	360	310	284	248	260	271	300	317	348	1363	-189	1174	0.339	
	20	378	396	411	408	398	396	392	391	385																				
	21										389	390	387	387	388	360	327	268	198	156	186	222	290	340	351	1341	-189	1152	0.520	
	22	367	358	357	369	373	388	400	390	375	369	360	358	360	355	360	350	270	167	133	197	230	296	345	360	1329	-199	1130	0.702	
	23	368	376	389	409	422	417	410	416	417	410	400	398	400	398	404	367	288	190	198	242	297	350	408	435	1367	-219	1148	0.554	
	24	421	406	393	395	390	402	411	398	380	380	377	380	387	384	403	347	261	179	140	170	237	290	330	341	1342	-212	1130	0.702	
	25	349	347	362	374	379	384	387	387	382	372	360	338	320	330	302	240	139	088	112	148	212	288	347	402	1306	-191	1115	0.826	
	26	422	409	420	436	445	449	450	459	462	426	387	359	335	325	325	279	213	216	179	197	218	227	259	308	1342	-143	1199	0.132	
	27	364	414	440	425	393	415	435	418	395																				
	28										401	405	368	335	330	375	360	300	208	188	187	238	299	357	422	1353	-148	1205	0.082	
	29	458	409	411	431	443	429	412	402	387	395	400	505	613	722	217	780	899	2011	680	682	743	770	730	773	1571	-157	1414	0.998356	
	30	742	712	699	700	693	678	660	646	627	615	600	588	580	575	570	535	488	1418	355	320	350	412	479	517	1565	-181	1384	8603	
Means.....		1481	1475	1477	1485	1485	1485	1484	1475	1462	1464	1463	1458	1456	1453	1428	1422	1369	1325	1285	1303	1348	1404	1447	1481	1434				
Temp. Corrections		-219	-216	-213	-209	-205	-202	-201	-198	-197	-195	-194	-190	-189	-184	-180	-179	-183	-187	-191	-196	-203	-209	-214	-219		-199			
Corrected Means..		1262	1259	1264	1276	1280	1283	1283	1277	1265	1269	1269	1268	1267	1269	1248	1243	1186	1138	1094	1107</									

$k = a. \cot. v. = 0.0003139 \times \cot. 75.15 = 0.00008264.$

s.d.

3.3963 = Correction for 1 Faht.

Zero for Magnetometer 1497 at Ther. 88.8 or Corrected Zero 1215.

Zero for Ther. 80.5 or Standard 80.0.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
OCTOBER 1851. Horizontal Force Magnetometer.				1.7		1.7		4.3		-1.4		-0.9																	
	1	1529	1530	1541	1543	1541	1556	1568	1558	1540	1514	1490	1483	1477	1465	1473	1423	1372	1302	1272	1275	1325	1405	1430	1510	1463	-191	1272	0.999528
	2	1585	1593	1538	572	602	629	652	630	600	614	631	637	645	648	570	424	380	1392	1470	1383	500	503	539	533	1553	-203	1350	8884
	3	535	536	550	559	565	564	560	559	550	551	555	547	540	538	524	478	414	1348	1314	1360	364	406	460	507	1495	-202	1293	9355
	4	449	471	476	484	489	481	470	481	483	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	465	449	446	445	440	422	370	293	1231	1212	1225	266	330	375	398	1402	-203	1199	1.000132
	6	390	368	378	387	393	403	410	403	388	374	362	355	350	350	323	258	172	1100	1080	1100	180	275	336	345	1312	-164	1148	0554
	7	307	310	311	313	312	318	320	324	320	309	300	285	272	280	289	233	168	1100	1080	1110	170	243	280	300	1261	-131	1130	0702
	8	313	313	338	343	345	338	327	324	312	300	290	282	275	270	252	210	144	1075	1040	1115	140	200	254	275	1253	-103	1150	0537
	9	280	300	289	291	290	306	318	314	302	300	300	295	291	290	281	242	169	1122	1110	1168	218	287	320	400	1270	-101	1169	0380
	*10	a														a	242	194	1140	1095	1100	205	290	375	450	?			
	11	450	428	425	425	422	408	390	380	362	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	12	—	—	—	—	—	—	—	—	—	335	310	305	302	291	277	190	112	1035	1016	1080	155	235	300	335	1290	-130	1160	0455
	13	355	339	341	346	347	352	353	351	340	334	330	325	321	340	317	318	272	1199	1120	1145	160	240	310	345	1300	-155	1145	0578
	14	382	370	411	388	361	382	400	387	366	357	350	347	345	350	368	340	280	1217	1190	1180	220	260	295	320	1328	-168	1160	0455
	15	330	328	330	336	339	343	344	351	350	333	318	303	290	288	286	249	200	1170	1125	1100	122	154	215	225	1268	-156	1112	0851
	16	245	260	291	293	292	299	303	311	310	299	290	288	287	298	307	277	250	1200	1150	1135	180	210	248	275	1262	-152	1110	0868
	17	280	297	300	300	297	306	311	315	311	304	300	293	287	292	299	267	198	1173	1125	1110	162	250	278	290	1264	-149	1115	0826
	18	303	319	326	355	380	386	388	391	386	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	19	—	—	—	—	—	—	—	—	—	349	315	317	320	350	337	284	258	1290	1270	1280	307	310	320	333	1328	-144	1184	0256
	20	353	294	359	336	310	309	304	329	346	332	320	328	337	350	386	325	342	1323	1360	1358	380	385	385	397	1344	-130	1214	0008
	21	400	402	398	396	390	388	383	389	387	372	360	344	330	298	269	228	170	1122	1095	1090	065	166	257	280	1291	-123	1168	0389
	22	300	329	348	347	342	348	350	345	332	310	290	290	292	320	327	252	179	1122	1080	1055	115	178	250	327	1268	-119	1149	0545
	23	320	326	243	312	377	381	381	377	364	340	318	309	302	307	307	274	201	1260	1192	1250	315	370	420	450	1321	-133	1188	0224
	24	410	470	425	375	322	353	380	366	343	334	327	332	339	330	294	250	209	1154	1090	1147	225	247	327	314	1307	-120	1187	0232
	25	307	304	298	305	308	310	309	316	315	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	26	—	—	—	—	—	—	—	—	—	285	257	258	260	265	258	200	152	1101	1090	1110	160	210	280	315	1249	-96	1153	0512
	27	310	329	332	321	306	314	318	307	288	282	279	277	277	266	241	192	127	1065	0998	1000	055	120	172	200	1224	-85	1139	0628
	28	208	220	225	214	200	198	192	208	216	212	210	262	315	330	318	282	201	1228	1270	1705	812	760	665	630	1337	-76	1261	0.999620
	29	624	644	569	552	531	511	488	498	500	484	470	460	451	435	430	405	340	1285	1210	1198	230	295	352	395	1432	-87	1345	8925
	30	440	463	430	421	409	400	388	378	360	354	351	333	317	310	301	257	199	1127	1085	1070	115	160	195	228	1295	-60	1235	9834
	31	245	257	269	277	282	291	297	296	286	277	271	262	255	230	214	146	103	996	982	936	015	090	133	186	1192	-57	1135	1.000661
Means.....	1371	1377	1375	1377	1375	1380	1381	1380	1371	1358	1348	1345	1343	1343	1333	1284	12												

$$k = a. \cot. v = 0.0003139 \times \cot. 75^\circ 15' = 0.00008264.$$

$$\frac{s.d.}{3.3963} = \text{Correction for } 1^\circ \text{ Fahr.}$$

Zero for Magnetometer 1497 at Ther. 88.8° or Corrected Zero 1215.Zero for Ther. 80.5° or Standard 80.0° .

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$
Madras Mean Time.		P. M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.			
		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41				
NOVEMBER 1851. Horizontal Force Magnetometer.				2.4			-5.1		4.1		1.1		-1.6																
	1	1195	1203	1213	1226	1235	1233	1242	1245	1240																			
	2										1227	1211	1198	1188	1162	1150	1127	1160	1103	1042	980	1000	1042	1030	1050	1154	-20	1134	1.000669
	3	071	119	160	192	220	190	170	186	193	178	160	152	147	150	144	140	1088	1049	1018	1020	1063	085	093	090	1128	34	1162	0438
	4	100	127	161	149	133	131	140	143	137	139	139	132	128	140	130	098	1040	994	960	952	1010	068	102	120	1099	46	1145	0578
	5	130	135	160	169	174	162	160	162	155	157	157	154	154	158	142	114	1062	1033	1000	1010	1033	072	090	098	1118	38	1156	0483
	6	100	103	116	125	129	119	120	112	095	093	088	087	090	090	073	040	997	941	927	940	1000	053	072	087	1067	71	1138	0637
	7	092	093	097	106	111	115	130	127	115	114	110	107	108	106	090	048	1006	994	1008	1020	1040	080	132	170	1088	43	1131	0694
	8	182	174	164	164	159	150	151	149	138																			
	9										133	125	121	120	124	130	087	1041	997	1000	1017	1081	160	222	240	1126	-16	1110	0868
	10	282	298	300	282	259	229	210	203	187	181	172	161	153	140	139	087	985	924	910	950	970	025	068	088	1133	-39	1094	1000
	11	129	190	231	219	202	211	230	213	188	183	176	172	172	189	172	128	1080	1032	1018	1048	1079	148	191	216	1159	-46	1113	0843
	12	210	196	196	202	203	201	210	224	230	215	197	188	182	188	162	126	1058	1015	970	991	1040	092	140	166	1150	-45	1105	0909
	13	171	157	163	175	183	187	202	205	200	190	177	172	170	170	166	100	1040	988	938	940	1002	055	100	129	1124	-36	1088	1050
	14	158	159	179	175	166	180	205	216	218	209	198	188	181	180	162	155	1115	1068	1078	1072	1109	139	141	128	1157	-22	1135	0661
	15	138	123	124	139	149	139	140	131	114																			
	16										129	142	138	138	130	123	080	1040	965	940	940	990	019	055	103	1089	1	1090	1033
	17	146	153	168	186	200	181	172	160	140	141	140	137	137	122	123	106	1080	1080	1069	1063	1076	100	132	135	1131	-16	1115	0826
	18	139	149	161	173	180	166	162	184	197	191	182	179	180	178	170	160	1130	1077	1038	1032	1048	083	118	127	1142	-30	1112	0851
	19	133	142	151	159	163	160	168	166	155	148	138	133	132	130	118	076	1042	1000	1020	1025	1039	081	113	125	1113	-24	1089	1041
	20	135	140	151	160	164	161	168	167	157	159	159	153	150	157	146	117	1060	1032	1005	1000	1040	090	118	130	1122	-34	1088	1050
	21	171	180	212	229	242	250	269	236	195	189	180	169	162	147	120	093	1060	1040	1050	1090	1160	319	408	435	1192	-45	1147	0562
	22	337	353	450	448	442	409	386	377	360																			
	23										309	255	257	262	250	239	180	1138	1100	1108	1130	1202	257	310	340	1287	-66	1221	0.999951
	24	350	362	357	359	356	353	360	307	245	254	260	268	280	258	248	205	1150	1094	1025	1050	1090	147	190	225	1241	-79	1162	1.000438
	25	199	191	210	214	214	216	229	221	205	211	215	215	218	212	202	164	1095	1058	1010	1040	1087	129	167	199	1172	-75	1097	0975
	26	200	200	201	206	207	198	200	199	190	191	190	187	188	180	169	132	1060	1000	962	970	1010	082	140	190	1144	-62	1082	1099
	27	182	174	169	171	168	158	159	155	143	150	155	148	144	130	172	147	1109	1047	1010	1016	1033	090	131	150	1130	-32	1098	0967
	28	171	184	171	169	162	148	145	151	148	138	125	131	140	142	120	082	1041	1001	980	984	1003	034	070	092	1106	10	1116	0818
	29	084	078	080	103	121	114	117	118	110																			
30										107	102	099	100	083	101	089	1044	1018	990	1020	1042	110	114	125	1086	17	1103	0925	
Means.....		1168	1175	1190	1196	1198	1190	1194	1190	1178	1173	1166	1162	1161	1157	1148	1115	1069	1026	1003	1012	1050	1102	1138	1158	1138			
Temp. Corrections		-29	-26	-24	-21	-19	-17	-17	-16	-15	-13	-12	-10	-10	-8	-6	-6	-10	-13	-17	-20	-23	-26	-28	-28		-17		
Corrected Means..		1139	1149	1166	1175	1179	1173	1177	1174	1163	1160	1154	1152	1151	1149	1142	1109	1059	1013	986	992	1027	1076	1110	1130			1121	
Mean Hourly Variations from General Monthly Mean.		-18	-28	-45	-54	-58	-52																						

$k = a. \text{ Cot. } v. = 0.0003139 \times \text{Cot. } 75.15 = 0.00008264.$
 $s.d. \quad 3.3963 = \text{Correction for } 1 \text{ Faht.} \quad \text{Zero for Magnetometer 1497 at Ther. } 88.8 \text{ or Corrected Zero } 1215.$
 $\text{Zero for Ther. } 80.5 \text{ or Standard } 80.0.$

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.	Temperature Corrections.	Corrected Means.	1 + $\frac{\Delta X}{X}$	
P.M. h.m. 4:41 5:41 6:41 7:41 8:41 9:41 10:41 11:41 12:41 13:41 14:41 15:41 16:41 17:41 18:41 19:41 20:41 21:41 22:41 23:41 0:41 1:41 2:41 3:41																													
DECEMBER 1851. Horizontal Force Magnetometer.	1	1131	1114	1120	1129	1137	1152	1159	1161	1162	1138	1118	1124	1130	1132	1142	1127	1102	1040	1030	1008	1052	1114	1158	1167	1119	-15	1104	1.000917
	2	180	190	178	176	173	180	178	177	175	168	165	163	160	160	165	1149	1123	1030	1040	1017	1010	1058	1110	137	1138	-35	1103	0925
	3	141	153	150	160	168	172	168	164	159	153	150	150	150	152	160	1147	1141	1112	1087	1062	1070	1091	1120	156	1139	-45	1094	1000
	4	163	165	168	164	158	163	159	165	170	152	138	144	150	145	140	1123	1099	1052	1027	1025	1057	1097	1120	130	1128	-38	1090	1033
	5	132	132	140	141	140	144	140	135	130	117	108	104	100	085	030	1008	990	953	940	966	1040	1061	1129	140	1084	-16	1068	1215
	6	132	137	145	128	109	147	176	158	139	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	7	—	—	—	—	—	—	—	—	—	168	200	224	248	240	235	1200	1167	1162	1140	1169	1158	1174	1220	249	1176	8	1184	0256
	8	266	300	285	264	242	236	222	206	190	175	163	169	175	173	157	1150	1103	1055	1020	1022	1038	1080	1112	156	1165	28	1193	0182
	9	168	170	201	209	216	223	221	209	197	182	170	157	143	138	117	1083	1067	1030	1010	1037	1084	1093	1090	104	1138	37	1175	0330
	10	110	123	152	144	134	142	141	125	109	120	135	132	128	117	103	1070	1027	1010	1019	1027	1063	1097	1102	118	1102	42	1144	0587
	11	130	130	136	128	119	139	150	153	155	131	110	104	097	092	073	1040	1002	967	970	990	1015	1032	1039	045	1081	58	1139	0628
	12	052	079	083	086	088	102	107	094	080	083	090	090	090	075	060	1040	1001	967	948	972	1002	1058	1107	104	1061	67	1128	0719
	13	107	118	108	122	135	151	158	150	142	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	14	—	—	—	—	—	—	—	—	—	124	110	118	125	113	090	1070	1046	1018	988	986	1020	1060	1079	088	1093	46	1139	0628
	15	093	106	113	117	119	122	117	118	118	112	110	110	110	100	088	1073	1052	1010	970	982	1018	1051	1070	112	1083	18	1101	0942
	16	104	110	132	169	204	170	128	139	150	142	138	133	127	120	100	1082	1042	1020	1004	998	1022	1058	1080	096	1103	10	1113	0843
	17	113	128	140	136	130	143	148	134	120	119	122	117	111	107	092	1065	1042	1000	980	964	1020	1017	1078	120	1089	-1	1088	1050
	18	153	153	158	193	227	198	160	154	147	137	130	130	130	122	096	1070	994	997	935	1020	1060	1066	1092	128	1110	11	1121	0777
	19	184	149	170	177	182	173	155	151	147	137	130	124	118	112	079	1054	1022	1011	990	980	1000	1030	1040	048	1098	42	1140	0620
	20	058	073	082	100	117	115	104	107	109	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	21	—	—	—	—	—	—	—	—	—	081	056	051	046	047	038	981	960	914	900	940	950	1002	1060	130	1043	54	1097	0975
	22	093	104	132	174	214	218	214	205	195	210	228	209	190	152	130	1087	1039	990	1010	1080	1102	1150	1168	160	1144	61	1205	0082
	23	160	136	149	172	193	196	191	188	184	165	150	146	142	126	074	1103	1059	1008	910	887	914	984	1040	080	1098	75	1173	0347
	24	110	154	113	112	110	114	109	091	072	066	063	072	080	098	102	1059	1019	978	918	908	947	1032	1100	154	1066	86	1152	0520
	25	160	142	142	141	138	132	118	119	120	108	100	091	082	068	060	1040	985	936	889	896	949	1019	1053	055	1064	79	1143	0595
	26	053	059	044	079	112	106	092	076	060	048	040	055	070	070	060	1040	995	954	900	903	920	953	990	008	1029	96	1125	0743
	27	034	100	121	147	171	175	170	185	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	28	—	—	—	—	—	—	—	—	—	213	230	228	225	240	190	1122	1009	1025	1071	1070	1073	1084	1100	120	1138	81	1219	0.999967
	29	147	159	157	190	222	255	280	320	360	309	262	246	230	184	230	1202	1169	1128	1117	1122	1149	1259	1284	250	1218	67	1285	9421
	30	217	192	167	167	166	149	124	122	120	128	140	141	142	108	063	1052	990	967	920	910	949	977	998	017	1080	62	1142	1.000603
	31	040	072	110	108	104	111	110	100	090	083	080	080	079	060	058	1042	1018	966	921	903	920	950	992	020	1043	74	1117	0810
Means.....	1127	1135	1141	1149	1157	1160	1156	1152	1148	1140	1135	1134	1133	1124	1109	1084	1047	1013	987	994	1022	1061	1094	1115	1105				
Temp. Corrections	21	24	25	27	28	31	33	34	35	37	38	40	41	44	49	52	50	47	42	37	33	28	25	24	.....	35			
Corrected Means.	1148	1159	1166	1176	1185	1191	1189	1186	1183	1177	1173	1174	1174	1168	1168	1136	1097	1060	1029	1031	1055	1089	1119	1139	.....	.....	1140		
Mean Hourly Variations from General Monthly Mean.	-8	-19	-26	-36	-45	-51	-49	46	-43	-37	-33	-3																	

$$k = a \cot \theta \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cot 73^\circ 37' 15'' \times \left(\frac{6.896}{11.236} \right)^2 = 0.00008192 \quad \frac{q}{k} \frac{.000360}{.000082} = 4.394 = 1^\circ \text{ Faht.} \quad \text{Zero } 80.0^\circ \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER—(Uncorrected.)

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta X}{X}$
Madras Mean Time.	P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41				
JANUARY 1851. Vertical Force Magnetometer.				-4.3 *		-7.7 *			-9.9 *		-2.4 *		12.0 *															
	†1	1519	1490	1524		1544		1579		1613		1540		1421	1358	1384	1455	1774		2188		2211		1884				
	†2	1586		1566		1522		1521		1521				1447	1361		1521		1557		1607		1590					
	†3	1540		1478		1450		1442		1939				1374	1364		1360		1796		2387		1744					
	†4	1518		1478		1450		1450		1444																		
	†5													1363	1249		1550		2070		2691		2285					
	†6	1528		1500		1490		1429		1429				1402	1347		1585	1711	1763	2136	2450	2368	2096	1865				
	7	1754	1573	1475	1473	1479	1459	1455	1445	1455	1465	1479	1465	1427	1380	1384	1403	1477	1725	1857	1880	1957	2200	2223	1973	1619	76	1695
	8	1693	1616	1584	1557	1539	1504	1484	1481	1497	1469	1445	1445	1422	1378	1385	1284	1416	1385	1422	1551	1718	1710	1545	1532	1503	69	1572
	9	1599	1592	1510	1492	1482	1438	1410	1400	1410	1415	1425	1396	1343	1348	1251	1134	1166	1355	1604	2154	2623	2295	2079	1734	1569	79	1648
	10	1633	1551	1477	1472	1475	1440	1420	1410	1420	1428	1440	1430	1396	1376	1380	1427	1492	1535	1425	1460	1887	2065	1904	1645	1525	71	1596
	11	1578	1501	1485	1471	1465	1442	1435	1421	1426																		
	12										1399	1377	1376	1352	1321	1322	1367	1516	1559	1649	1978	2309	2430	2178	1790	1589	38	1627
	13	1581	1550	1457	1438	1427	1425	1439	1429	1439	1394	1353	1361	1346	1346	1205	1141	1312	1412	1473	1576	1721	1631	1499	1492	1435	24	1459
	14	1492	1428	1315	1353	1400	1399	1414	1397	1400	1327	1259	1294	1305	1291	1291	1284	1411	1540	1717	1717	1760	1775	1573	1573	1446	-6	1440
	15	1478	1420	1400	1394	1397	1378	1375	1355	1355	1346	1341	1354	1344	1334	1215	1180	1210	1340	1251	1321	1487	1547	1507	1390	1363	-7	1356
	16	1347	1365	947	1140	1341	1370	1414	1740	2085	1676	1272	1335	1374	1480	1286	1071	857	1182	1369	1084	1335	1475	1249	1216	1334	-11	1323
	17	1167	1231	1249	1260	1279	1271	1279	1275	1290	1267	1248	1242	1213	1121	1224	1224	1448	1644	1623	1561	1660	1747	1521	1568	1359	-6	1353
	18	1458	1424	1470	1376	1290	1284	1294	1223	1171																		
	19										1241	1316	1323	1307	1334	1319	1415	1835	2469	2887	1936	1950	1710	1660	2520	1592	13	1605
	20	1794	2099	1581	1445	1318	1277	1252	1254	1276	1324	1376	1368	1337	1326	1326	1382	1509	1713	1890	2011	1980	1841	1755	1693	1547	15	1562
	21	1425	1393	1418	1421	1432	1434	1452	1432	1432	1358	1289	1325	1337	1333	1307	1304	1724	2015	2175	2105	1773	1277	1287	1427	1495	25	1520
	22	1548	1373	1382	1390	1406	1394	1397	1366	1355	1280	1210	1270	1306	1307	1181	1244	1320	1360	1657	1894	1885	1754	1471	1308	1419	25	1444
	23	1265	1319	1520	1395	1279	1302	1341	1339	1356	1310	1269	1272	1251	1273	1268	1191	1561	1956	2182	2232	2263	2076	1701	1573	1521	15	1536
	24	1493	1433	1450	1436	1431	1410	1405	1368	1350	1358	1370	1378	1362	1324	1242	1369	1762	2431	2895	2904	2599	2150	1717	1404	1668	45	1713
	25	1461	1560	1506	1467	1436	1428	1436	1420	1424																		
	26										1441	1463	1475	1463	1448	1394	1166	1225	1294	1430	1734	1934	2058	2049	1843	1523	61	1584
	27	1594	1452	1502	1467	1440	1427	1429	1455	1501	1473	1450	1444	1415	1404	1389	1364	1208	1827	1907	1773	1761	1900	1900	1766	1552	77	1629
	28	1553	1514	1506	1516	1534	1516	1514	1504	1514	1498	1486	1470	1431	1443	1434	1485	1604	1842	1934	1934	2041	2027	1726	1536	1607	83	1690
	29	1536	1458	1462	1476	1499	1425	1366	1356	1366	1393	1424	1470	1492	1469	1418	1424	1582	1924	2170	2339	2362	2101	1834	1607	1623	77	1700
	30	1420	1512	1466	1470	1483	1440	1412	1392	1392	1389	1390	1402	1390	1357	1376	1529	1819	2221	2440	2542	2542	2047	1665	1487	1649	66	1715
	31	1460	1540	1495	1478	1470	1462	1470	1443	1435	1421	1411	1411	1387	1363	1402	1537	1836	2397	2651	2857	2325	1641	1219	1120	1635	40	1675
Means.....	1515	1496	1439	1427	1423	1406	1404	1405	1425	1394	1368	1378	1364	1353	1318	1315	1468	1733	1891	1934	1994	1884	1694	1600	1526			
Temp. Corrections	7	12	23	28	31	35	37	42	45	47	47	51	55	67	79	83	73	59	46	35	24	13	6	4	.....	40		
Corrected Means..	1522	1508	1462	1455	1454	1441	1441	1447	1470	1441	1415	1429	1419	1420	1397	1398	1541	1792	1937	1969	2018	1897	1700</					

$$k = a \cot. \theta \left(\frac{T}{T'} \right)^2 = .0000291 \times \cot. 73^\circ 35' \times \left(\frac{6.892}{11.055} \right)^2 = .00008484 \quad \frac{q}{k} = \frac{.360}{.085} = 4.243 = 1^\circ \text{Faht.} \quad \text{Zero } 80^\circ 0 \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER.—(Uncorrected.)

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.		P M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.			
		4:41	5:41	6:41	7:41	8:41	9:41	10:41	11:41	12:41	13:41	14:41	15:41	16:41	17:41	18:41	19:41	20:41	21:41	22:41	23:41	0:41	1:41	2:41	3:41				
FEBRUARY 1851. Vertical Force Magnetometer.					4.5 *		-1.5 *		5.1 *		14.9 *		7.7 *																
	1	1373	1514	1522	1526	1522	1520	1521	1476	1420																			
	2										1407	1365	1353	1325	1310	1370	1410	1677	2174	2531	2297	2141	1369	0984	1009	1547	30	1577	
	3	334	553	481	485	481	423	368	375	372	387	372	355	323	313	386	575	2074	2610	2865	2831	2324	1617	1157	1098	1632	39	1671	
	4	269	405	431	445	451	444	440	433	415	445	446	415	368	341	405	615	1941	2193	2472	2590	2214	1779	1368	1225	1606	52	1658	
	5	326	440	487	493	491	500	513	438	353	325	267	384	486	438	472	672	2007	2414	2780	2647	2098	1352	1311	1422	1630	77	1707	
	6	542	560	483	508	524	475	432	437	432	467	473	467	446	415	390	523	1691	2249	2799	2861	2622	2138	1646	1449	1710	84	1794	
	7	557	610	528	540	543	553	565	556	537	531	496	456	401	403	388	388	1589	1836	2118	2463	2327	2030	1495	1205	1630	78	1708	
	8	447	493	462	466	462	472	485	468	441																			
	9										488	505	506	492	442	415	344	1573	1818	2025	2054	1939	1841	1631	1517	1574	63	1637	
	10	551	447	433	437	433	424	418	393	357	365	343	435	511	514	381	398	1398	1437	1659	1728	1796	1641	1493	1510	1479	50	1529	
	11	612	556	506	506	497	502	510	498	476	460	415	425	420	395	350	350	1371	1417	1545	1648	1597	1692	1470	1435	1486	51	1537	
	12	590	572	492	465	429	420	413	332	241	288	306	357	392	360	339	432	1502	1549	1669	1466	1345	1402	1376	1404	1423	16	1439	
	13	503	482	407	415	415	420	427	408	379	383	357	370	367	343	357	357	1289	1337	1298	1201	977	932	1029	1232	1320	9	1329	
	14	432	443	363	367	363	367	374	372	359	390	392	376	345	333	452	688	1957	2151	1969	1597	1190	778	712	894	1403	9	1412	
	15	260	389	323	339	347	339	334	347	350																			
	16										362	344	326	293	265	344	612	2032	2301	2330	1897	1604	1399	1169	1252	1482	-26	1456	
	17	548	503	478	482	478	410	345	360	364	339	284	295	291	205	196	196	1479	1810	1994	1782	1507	1199	968	1076	1400	-30	1370	
	18	230	417	384	352	311	383	457	462	457	347	208	239	254	299	300	673	2260	2443	2027	1349	1713	1449	1313	1219	1481	-27	1454	
	19	292	362	322	358	385	344	306	328	340	361	352	337	306	268	333	445	1626	1859	1995	1785	1411	1136	981	1007	1385	-38	1347	
	20	315	402	444	469	485	333	183	222	250	305	330	318	291	251	378	602	1980	2296	2445	2497	2347	2094	1855	1648	1614	-31	1583	
	21	570	438	399	400	392	385	380	368	345	343	311	313	300	251	251	399	1609	1901	2131	2170	2018	1662	1294	1242	1495	-30	1465	
	22	366	386	340	344	340	329	320	319	308																			
	23										349	371	373	359	337	329	475	1702	2132	2199	1849	1460	1236	1201	1611	1460	-8	1452	
	24	547	484	484	427	361	340	321	389	447	413	350	383	401	398	371	524	1705	1851	1990	2025	1653	1641	1599	1698	1533	8	1541	
	25	640	587	580	502	415	440	468	473	468	486	475	444	397	396	396	576	1811	2106	2106	1956	1778	1707	1626	1577	1600	11	1611	
	26	665	562	451	455	451	443	437	442	437	443	420	409	383	355	424	546	1809	2143	2231	1936	1824	1678	1445	1402	1575	15	1590	
	27	572	611	546	522	489	476	465	478	481	453	396	430	449	430	482	667	2069	2438	2654	2434	1989	1618	1399	1526	1670	10	1680	
28	561	511	456	460	456	409	364	334	294	323	323	399	460	440	272	394	1890	2205	2206	2263	1861	1750	1726	1731	1587	-11	1576		
Means.....		1463	1489	1450	1448	1438	1423	1410	1405	1388	1394	1371	1382	1378	1354	1366	1494	1752	2028	2168	2055	1822	1548	1344	1350	1530			
Temp. Corrections		-29	-23	-8	-3	1	6	8	14	17	22	26	36	45	58	78	78	62	44	26	10	-1	-16	-24	-30		26		
Corrected Means..		1434	1466	1442	1445	1439	1429	1418	1419	1405	1416	1397	1418	1423	1412	1444	1572	1814	2072	2194	2065	1821	1532	1320	1320			1556	
Mean Hourly Variations from General Monthly Mean.		122	90	114	111	117	127	138	137	151	140	159	138	133	144	112	-16	-258	-516	-638	-509	-265	24	236	236		$\frac{\Delta Y}{Y} =$		.005413
		1035	0764	0967	0942	0993	1078	1171	1162	1281	1188	1319	1171	1128	1222	0950	-0136	-2189	-4378	-5413	-4319	-2243							

$k = a \cot. \theta \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cot. 7^\circ 35' 27'' \times \left(\frac{8.6889}{11.191} \right)^2 = .00008275 \quad \frac{q}{k} = \frac{.360}{.083} = 4.351 = 1 \text{ Faht.} \quad \text{Zero. } 80.0 \text{ Ther.}$

VERTICAL FORCE MAGNETOMETER.—(Uncorrected.)

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.		P.M. 4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41				
MARCH 1851. Vertical Force Magnetometer.				6.4 *		0.3 *		1.7 *		13.2 *		24.2 *																	
	1	1730	1643	1504	1500	1483	1475	1466	1461	1452	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1733	-8	1725
	2	—	—	—	—	—	—	—	—	—	1513	1547	1559	1522	1430	1468	1602	1897	2311	2498	2632	2369	2012	2068	1453	1733	-8	1725	
	3	1623	1684	1448	1476	1492	1485	1477	1479	1477	1498	1492	1474	1407	1407	1394	1356	1589	1947	2102	2169	1925	1610	1446	1354	1575	10	1585	
	4	1458	1519	1491	1499	1494	1467	1440	1440	1436	1427	1391	1399	1358	1331	1382	1431	1671	1947	2019	1820	1572	1375	1213	1241	1493	-24	1469	
	5	1443	1509	1467	1473	1467	1454	1440	1442	1440	1431	1396	1420	1396	1354	1387	1471	1686	1871	1865	1710	1574	1486	1281	1338	1492	-31	1461	
	6	1454	1535	1471	1468	1452	1459	1466	1440	1410	1423	1410	1422	1386	1310	1313	1400	1598	1986	2178	2126	2000	1550	1421	1500	1549	-45	1504	
	7	1455	1495	1567	1525	1471	1448	1424	1426	1424	1423	1396	1404	1363	1363	1255	1277	1483	1923	2170	1863	1933	1802	1629	1520	1543	-86	1457	
	8	1444	1444	1375	1381	1375	1352	1329	1331	1329	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9	—	—	—	—	—	—	—	—	—	1303	1251	1318	1337	1337	1188	1239	1350	1536	1536	1564	1708	1642	1694	1840	1425	-84	1341	
	10	1677	1525	1440	1450	1448	1439	1430	1432	1430	1403	1350	1363	1327	1215	1258	1405	1615	1839	1943	1699	1502	1205	1478	1612	1479	-85	1394	
	11	1612	1511	1276	1289	1290	1311	1331	1323	1312	1325	1312	1302	1244	1220	1262	1288	1453	1604	1738	1522	1416	2912	2882	2535	1553	-123	1430	
	12	2531	2521	2430	2454	2465	2424	2382	2353	2321	2315	2282	2306	2282	2282	1896	2212	2441	2777	2734	2505	2326	2120	2152	2245	2365	-134	2231	
	13	2115	2073	2035	1998	1949	1934	1918	1889	1856	1879	1875	1870	1817	1744	1744	1861	2163	2479	2638	2555	2364	1959	1899	1953	2024	-127	1897	
	14	1992	2033	2475	2254	2020	1969	1917	1830	1740	1815	1864	1825	1737	1737	1874	1995	2119	2181	2482	2454	2534	2640	2452	2471	2100	-101	1999	
	15	2130	2027	1938	1924	1898	1898	1898	1846	1791	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	16	—	—	—	—	—	—	—	—	—	1807	1797	1753	1660	1595	1651	1800	2025	2397	2602	2383	2028	1690	1575	1660	1907	-107	1800	
	17	1902	1874	1880	1846	1800	1789	1778	1766	1751	1764	1751	1734	1668	1668	1643	1828	2085	2304	2621	2809	2631	2510	2152	1982	1981	-102	1879	
	18	1824	1838	1788	1803	1805	1751	1696	1690	1681	1694	1681	1675	1620	1507	1398	1335	1449	1747	2063	2204	2364	2290	2120	1887	1788	-113	1675	
	19	1753	1776	1688	1698	1695	1671	1647	1620	1589	1602	1589	1590	1543	1513	1454	1396	1557	1717	1989	2260	2290	2121	1895	1798	1727	-136	1591	
	20	1514	1596	1669	1778	1874	1781	1688	1612	1532	1523	1487	1520	1504	1353	1341	1474	1768	2161	2245	2313	2433	2178	1970	1858	1757	-172	1585	
	21	1719	1566	1377	1453	1516	1479	1442	1420	1395	1408	1395	1427	1411	1353	1248	1149	1276	1570	1833	1965	2008	1969	1931	1906	1551	-219	1332	
	22	1509	1509	1565	1542	1507	1507	1507	1523	1535	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	23	—	—	—	—	—	—	—	—	—	1486	1410	1390	1321	1205	1152	1195	1382	1594	1860	1923	2000	2046	1985	1846	1562	-226	1336	
	24	1758	1607	1515	1461	1395	1363	1331	1350	1365	1343	1295	1345	1346	1249	1226	1338	1505	1952	2203	2203	2031	1939	1826	1577	1563	-209	1354	
	25	1410	1400	1341	1365	1376	1374	1371	1322	1269	1272	1249	1263	1229	1134	1223	1286	1485	1817	2137	2363	2363	2192	2012	1774	1543	-191	1352	
	26	1651	1490	1460	1441	1409	1369	1328	1330	1328	1367	1379	1329	1231	1188	1255	1472	1623	1959	2315	2277	2150	1922	1738	1605	1567	-166	1401	
	27	1467	1441	1400	1375	1338	1292	1246	1248	1246	1259	1246	1248	1202	1202	1140	1142	1256	1490	1796	1805	2133	1788	1738	1530	1418	-172	1246	
	28	1376	1324	1385	1311	1224	1216	1208	1210	1208	1239	1244	1224	1156	1156	1094	1200	1202	1425	1328	1351	1415	1650	1867	1818	1326	-214	1112	
	29	1343	1147	1225	1231	1225	1183	1141	1143	1141	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	1152	1137	1167	1149	1026	929	962	1056	1326	1646	1722	1603	1608	1456	1286	1250	-255	995	
	31	1286	1186	1190	1180	1158	1116	1073	1062	1048	1061	1048	1042	988	988	826	809	1028	1464	1808	1779	1648	1503	1380	1241	1205	-262	943	
Means.....	1661	1626	1592	1584	1563	1539	1514	1500	1481	1490	147																		

VERTICAL FORCE MAGNETOMETER.—(*Uncorrected.*)

* The numbers in these Columns are not observed; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the Corrections of interpolations.

$$k = a \cot. \theta \left(\frac{T}{T'} \right)^2 = .0000291 \times \cot. 7^\circ 38' 21'' \times \left(\frac{8.}{11.155} \right)^2 = .00008279 \quad \frac{q}{k} = \frac{.360}{.083} = 4.348 = 1^\circ \text{ Faht.} \quad \text{Zero } 80^\circ 0 \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER—(Uncorrected.)

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.		P.M. h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.				
		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41				
MAY 1851. Vertical Force Magnetometer.	1	636	636	620	557	520	503	520	547	561	575	590	573	534	534	567	487	561	919	1262	799	1055	1129	918	754	682	-322	360	
	2	602	688	691	577	490	453	450	453	444	461	480	446	390	375	231	413	734	953	953	1004	797	429	220	220	540	-193	347	
	3	343	509	562	521	507	464	456	450	431	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5	505	505	580	483	412	429	481	438	382	414	448	415	360	212	187	322	546	740	771	648	729	640	494	396	481	-88	393	
	6	490	627	627	513	425	364	338	351	351	347	345	356	345	240	240	329	517	749	896	1021	981	806	625	423	513	-113	400	
	7	354	502	504	456	435	381	361	366	359	356	355	350	324	260	133	133	311	311	280	280	394	309	446	446	350	-153	197	
	8	419	329	458	402	373	268	198	203	195	171	149	160	149	183	56	-152	-176	-29	11	79	153	262	280	280	184	-195	011	
	9	328	328	328	286	270	253	270	281	279	281	284	288	270	132	37	107	136	312	396	139	-17	146	146	70	223	-250	027	
	10	238	315	315	269	250	221	227	209	178	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	12	359	424	477	410	370	355	374	358	329	309	290	301	290	237	238	472	719	1011	1036	1203	1076	795	663	554	529	-287	242	
	13	538	467	472	428	410	353	330	342	341	321	302	318	312	219	170	181	380	772	772	870	697	579	454	253	428	-290	138	
	14	253	395	395	361	354	319	319	327	323	346	370	381	370	159	102	171	428	821	1028	1028	866	764	669	484	460	-297	163	
	15	429	501	500	464	455	389	357	360	351	354	359	370	359	296	321	390	619	958	1321	1260	971	839	600	360	549	-310	239	
	16	232	436	436	418	427	335	277	293	296	298	302	302	281	222	165	244	436	711	854	1313	783	583	442	154	427	-292	135	
	17	65	360	484	385	313	249	219	216	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	19	415	415	349	291	259	204	184	191	185	199	214	161	86	40	-61	-201	109	313	453	572	687	514	401	217	258	-278	-20	
	20	217	217	217	183	175	149	157	151	133	128	125	114	82	82	-152	-261	-179	35	303	638	863	989	858	711	247	-283	-36	
	21	520	309	254	201	175	136	132	140	135	143	153	132	90	-47	-146	-315	-247	-164	-92	80	192	232	335	294	110	-283	-173	
	22	294	167	148	99	77	43	44	51	45	34	25	-15	-51	-71	-136	-267	-167	65	303	613	930	930	766	461	183	-297	-114	
	23	260	106	175	152	155	67	13	21	17	3	-9	19	26	-77	-91	-40	152	528	574	385	145	76	195	195	127	-323	-196	
	24	278	176	107	78	75	40	40	2	-44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	26	523	401	265	220	201	159	151	159	154	141	130	141	130	110	172	278	669	1016	817	744	638	477	289	164	340	-209	131	
	27	298	335	269	213	184	150	151	157	150	149	150	146	121	37	93	259	452	1054	1302	1808	1034	722	488	159	370	-223	147	
	28	99	230	289	218	172	117	97	122	135	129	125	136	125	2	-56	71	572	915	985	1064	979	796	565	318	300	-271	29	
	29	216	216	251	186	148	131	148	146	132	135	140	151	140	77	156	349	578	791	790	960	1253	794	676	401	369	-301	68	
	30	354	304	304	238	198	149	135	156	164	195	228	217	185	90	40	-105	-9	330	614	660	655	641	536	357	276	-336	-60	
	31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Means.....		356	381	388	331	301	257	247	250	239	246	254	250	226	151	102	130	319	571	660	789	689	616	494	357	359			
Temp. Corrections		-286	-279	-270	-267	-262	-259	-254	-250	-247	-238	-231	-223	-219	-211	-214	-217	-221	-233	-244	-256	-267	-274	-283	-287		-249		
Corrected Means.		70	102	118	64	39	-2	7	000	-8	8	23	27	7	-60	-112	-87	98	338	416	533	422	342	211	70				
Mean Hourly Variations from General Monthly Mean.		40	8	-8	46	71	112	117	110	118	102	87	83	103	170	222	197	12	-228	-306	-423	-312	-232	-101	40		$\frac{\Delta Y}{Y}$		003502
		0331	0066	-0066	0381	0588	0927	0968	0911	0977	0844	0720	0687	0853	1407	1838	1631												

$$k = a \cot. \theta \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cot. 7.38.28 \times \left(\frac{6.892}{11.694} \right)^2 = .00008371 \quad \frac{q}{k} = \frac{.360}{.084} = 4.300 = 1^\circ \text{ Faht.} \quad \text{Zero } 80.0^\circ \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER.—(Uncorrected.)

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean.			
Madras Mean Time.		P. M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.
		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41				
JUNE 1851.	Vertical Force Magnetometer.	May 31				-2.3		4.1		-11.7		13.7		8.4															
		1	307	268	321	310	304	278	244	208	195																		
		2	547	437	416	376	340	340	332	305	302	316	302	302	286	255	198	82	215	215	336	627	571	389	373	409			
		3	438	438	425	375	330	336	333	324	338	352	338	329	304	205	150	150	221	545	688	578	603	599	504	392			
		4	342	342	399	303	211	237	254	242	254	268	254	262	254	211	84	-162	-245	-34	74	207	262	295	318	241			
		5	170	282	311	299	292	263	226	301	399	414	402	410	402	247	306	528	667	667	867	1001	1060	791	594	577			
		6	488	386	386	333	285	284	275	263	275	328	354	331	292	263	191	191	296	375	525	710	621	529	475	475			
		7	399	236	351	349	351	342	325	313	325																		
		8																											
		9	521	497	458	400	347	318	280	288	319	334	321	348	359	175	290	437	496	496	501	576	504	420	420	405			
		10	436	450	381	364	351	336	313	310	331	347	336	344	336	335	379	396	500	607	808	852	775	688	538	538			
		11	421	403	440	389	343	351	351	339	351	365	351	347	327	327	375	429	642	870	884	884	709	426	255	255			
		12	271	312	454	418	387	389	383	371	383	397	383	396	392	346	314	367	577	702	795	661	516	415	446	529			
		13	484	406	458	408	362	356	342	313	317	331	317	310	286	286	367	618	797	797	1026	1026	790	502	396	446			
		14	446	520	431	432	437	390	334	322	334																		
		15																											
		16	435	435	435	411	391	384	368	356	368	382	368	360	336	238	202	202	328	500	556	696	891	928	788	609			
		17	423	359	444	404	369	369	360	329	322	316	282	290	282	201	88	44	72	151	353	622	803	884	835	378			
		18	348	341	341	309	282	281	272	239	230	264	271	281	274	193	221	200	267	314	537	664	976	1121	1029	817			
		19	One of the Micrometers wire broken.																										
		20																											
		21																											
		22	re-adjusted.																										
		23	4710	4783	4927	4931	4939	4915	4882	4851	4844	4911	4950	4923	4879	4794	4899	5111	5531	5975	6294	6283	5950	5661	5400	5400			
		24	5391	5372	5295	5242	5194	5142	5081	5069	5081	5095	5081	5069	5040	4904	4871	4871	4999	5299	5389	5360	5440	5570	5529	5249			
		25	5021	4967	5022	4997	4977	4988	4990	5014	5062	5015	4940	4942	4927	4863	4798	4739	4781	4776	4842	4696	4447	4447	4366	4441			
		26	4704	4912	4886	4860	4839	4823	4798	4796	4818	4813	4780	4788	4780	4807	4896	5102	5259	5301	5208	5208	5012	4847	4931	4931			
		27	4988	4902	4989	4990	4995	4923	4843	4831	4843	4857	4843	4858	4856	4792	4792	4874	5091	5145	4977	5169	5369	5569	5402	5348			
		28	5014	5014	4990	4968	4950	4937	4915	4924	4957																		
		29										4922	4860	4833	4789	4775	4749	4808	4939	4999	5157	5236	4991	5017	4924	4946			
		30	4946	5004	4982	4961	4944	4927	4901	4885	4893	4907	4893	4865	4820	4820	4856	5036	5223	5260	5172	5320	5320	5059	4855	4816			
		JUNE 1851.	Temperature of Vertical Force Magnetometer.	May 31	890	888	887	886	885	885	885	884	883																
1												880	878	877	875	875	875	875	876	878	880	880	885	890	896	901			
2	903			902	900	899	897	897	897	895	892	891	891	889	886	885	885	885	887	890	895	898	900	905	904	903			
3	902			902	898	898	897	895	894	891	888	887	887	886	885	885	884	883	884	885	888	890	892	896	900	900			
4	902			902	899	897	895	893	892	890	887	886	886	885	884	882	882	883	885	887	890	895	900	905	908	909			
5	908			901	897	895	892	889	886	883	880	880	880	880	880	876	875	874	875	877	880	882	887	890	893	894			
6	898			899	898	897	896	895	895	893	890	887	884	843	882	877	875	876	878	882	885	886	891	897	900	904			
7	908			909	908	907	906	905	904	902	900																		
8												897	894	893	892	888	888	889	889	890	894	897	900	905	907	907			
9	907			906	903	902	900	898	896	894	892	891	890	889	887	885	884	884	885	886	889	892	898	900	902	902			
10	902			901	901	900	898	896	895	894	892	890	888	887	886	885	884	880	883	886	890	895	898	901	905	906			
11	908			909	907	906	904	904	904	902	900	898	896	896	895	892	891	893	895	895	900	903	905	910	910	912			
12	914			914	912	907	902	897	895	894	892	891	891	889	886	884	885	886	888	889	890	894	897	901	905	907			
13	909			908	907	905	902	899	897	896	894	892	890	889	887	885	883	885	886	888	890	894	897	899	901	900			
14	898			896	892	891	890	890	890	890	889																		
15												889	889	883	876	876	876	877	880	882	882	890	890	894	895	894			
16	894			891	887	886	885	881	877	874	870	870	870	869	867	863	863	864	865	868	874	876	880	884	886	888			

$$k = a \cot. \theta \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cot. 7^\circ 38' 36'' \times \left(\frac{6.893}{14.827} \right)^2 = 0.0004687 \quad \frac{q}{k} = \frac{.360}{.047} = 7.682 = 1 \text{ Faht.} \quad \text{Zero. } 80.0 \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER.—(Uncorrected.)

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41				
JULY 1851. Vertical Force Magnetometer.					2.9		-2.04		-8.1		7.2		17.5															
	1	4816	4860	4879	4891	4897	4893	4893	4885	4893	4913	4919	4905	4856	4789	4806	4889	5039	5378	5424	5104	5645	5407	5290	5200	5020	-572	4452
	2	5083	5011	5036	5021	5001	4958	4919	4939	4976	4977	4963	4944	4889	4889	4896	4939	5026	5169	5169	5232	5232	5149	5149	5177	5031	-588	4443
	3	5028	4875	4981	4993	5000	4930	4864	4856	4864	4849	4820	4862	4869	4831	4727	4727	4955	5081	5194	5194	5300	5371	5371	5289	4993	-589	4404
	4	5228	5013	4993	4918	4838	4845	4857	4868	4895	4902	4895	4900	4869	4762	4607	4282	4248	4132	4280	4459	4718	4800	4991	4991	4762	-492	4270
	5	4865	4717	4747	4752	4752	4740	4732	4687	4659																		
	6										4663	4653	4658	4627	4584	4521	4434	4505	4648	4808	4808	4808	4870	4818	4660	4696	-384	4312
	7	4660	4660	4695	4678	4655	4641	4631	4627	4640	4646	4638	4667	4661	4611	4604	4604	4823	5087	5190	5114	5114	5010	4913	4913	4770	-346	4424
	8	4830	4757	4795	4740	4680	4676	4677	4688	4715	4729	4729	4726	4687	4687	4600	4646	4782	4871	4845	4845	4866	4787	4787	4846	4750	-390	4360
	9	4804	4753	4691	4709	4721	4709	4701	4703	4721	4719	4702	4704	4671	4671	4584	4418	4504	4398	4238	4416	4282	4095	4187	4445	4564	-412	4152
	10	4481	4481	4620	4618	4610	4625	4644	4636	4644	4665	4672	4683	4658	4577	4603	4603	4633	4775	5009	4848	4778	4668	4526	4572	4651	-409	4242
	11	4626	4741	4702	4702	4696	4680	4668	4660	4668	4668	4654	4666	4643	4680	4577	4551	4577	4597	4689	4899	4801	4801	4841	4841	4693	-408	4285
	12	4754	4617	4715	4702	4683	4649	4620	4603	4602																		
	13										4711	4805	4770	4699	4701	4701	4682	4742	4489	4496	4624	4813	5009	4943	4943	4711	-358	4353
	14	4943	4913	4906	4861	4810	4798	4791	4765	4756	4816	4862	4851	4805	4755	4651	4601	4997	5294	5329	5484	5343	5135	4972	4949	4933	-344	4589
	15	4740	4717	4796	4774	4746	4744	4746	4740	4750	4738	4711	4719	4692	4644	4739	4868	4959	4982	4982	4926	4960	5173	5173	4936	4831	-346	4485
	16	4789	4759	4781	4784	4781	4779	4781	4772	4779	4786	4779	4757	4700	4642	4657	4757	4865	5133	5031	5031	4874	4813	4564	4630	4793	-363	4430
	17	4630	4834	4895	4844	4788	4799	4814	4761	4724	4765	4792	4776	4724	4607	4667	4795	5048	5201	5335	5799	6143	7375	7197	6752	5211	-359	4852
	18	5878	5018	5003	4997	4985	4920	4860	4852	4860	4874	4873	4879	4850	4826	4588	4666	4617	5096	5360	5558	6316	5630	5630	5523	5111	-336	4775
	19	5334	5181	5145	5083	5015	5012	5014	4977	4956																		
	20										4926	4881	4895	4873	4850	4726	4856	4912	5211	5748	6150	6576	6410	6215	5915	5286	-376	4910
	21	5571	5262	5264	5183	5096	5062	5033	5025	5033	4994	4940	4932	4889	4852	4873	5046	5354	5729	6009	6464	6337	6379	6155	5872	5390	-339	5051
	22	5572	5274	5214	5126	5033	5013	4997	4995	5010	5011	4997	5012	4991	4928	4926	4926	4971	5253	5937	6196	6230	6170	5830	5503	5296	-363	4933
	23	5323	5090	5165	5110	5050	4968	4891	4883	4892	4922	4937	4961	4950	4879	4894	5019	5319	5570	5700	5632	5310	5284	5332	5349	5143	-343	4800
	24	5337	5305	5135	5071	5002	4969	4940	4913	4902	4918	4920	4912	4869	4852	4950	5184	5364	5618	5555	5330	5141	5141	4780	4417	5064	-388	4676
	25	4561	4731	4842	4845	4842	4849	4861	4837	4830	4837	4830	4866	4866	4731	4936	5111	5450	5917	6286	6748	6233	5746	5290	4985	5168	-438	4730
	26	4985	5200	5370	5325	5274	5065	4861	4847	4850																		
	27										4862	4859	4921	4948	4937	5161	5296	5711	6229	6330	6135	5715	5186	4884	4861	5242	-453	4789
	28	5123	5215	5186	5146	5100	5071	5046	5038	5046	5053	5046	5025	4968	4912	4984	5381	5708	6001	6119	6556	6596	6181	5630	5590	5405	-479	4926
	29	4769	4797	4826	4929	5026	4879	4736	4750	4780	4824	4854	4902	4915	4781	4781	4885	5133	5441	5611	5648	5566	5333	5373	5373	5038	-490	4548
	30	5328	5067	5107	5079	5045	5051	5062	4996	4947	4961	4960	4965	4935	4935	4878	5041	5239	5323	5607	5770	5720	5801	5690	5301	5200	-440	4760
	31	5116	5158	5091	5078	5060	5025	4994	4986	4994	4971	4934	4952	4934	4869	4953	5071	5413	5669	6057	6560	6603	6454	6161	6027	5380		

VERTICAL FORCE MAGNETOMETER.—(*Uncorrected.*)

AUGUST 1851.

Vertical Force Magnetometer.

AUGUST 1851.

Temperature of Vertical Force Magnetometer:

* The numbers in these Columns are not observed ; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the Corrections of interpolations.

$$k = a \cot. \theta \left(\frac{T}{T} \right)^2 = 0.0000291 \times \cot. 7.38.33 \times \left(\frac{6.896}{17.788} \right)^2 = 0.0003259 \quad \frac{q}{k} = \frac{-360}{-0.33} 11.045 = 1 \text{ Faht.} \quad \text{Zero } 80.0 \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER—(Uncorrected.)

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.		P.M. 4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41	Means.			
SEPTEMBER 1851. Vertical Force Manetometer.					0.7 *		-0.1 *		-13.2 *		11.9 *		3.8 *																
	1	5552	5203	4959	4960	4959	4897	4836	4836	4862	4874	4862	4878	4887	4797	5077	5570	5791	6046	6316	6458	6532	6159	6032	5764	5379	-640	4739	
	2	5664	5241	5318	5155	4990	4938	4886	4860	4860	4873	4862	4879	4889	4889	5201	5429	5669	5864	6174	6222	6182	6105	5810	5810	5365	-686	4679	
	3	5294	5133	5358	5348	5336	5235	5134	4990	5072	5025	4954	4843	4724	4716	4979	5156	6196	6583	8010	8664	8046	4475	3724	4560	5481	-683	4798	
	4	4790	5510	4515	4492	4468	4706	4944	4526	4135	4404	4649	4669	4681	4616	4692	4863	4993	4905	4972	4910	4910	4440	4642	4573	4709	-747	3962	
	5	4757	4966	4908	4898	4887	4899	4911	4849	4813	4802	4767	4785	4796	4608	4928	5422	5697	5656	5700	5429	5712	5782	5605	5451	5126	-733	4393	
	6	5216	5090	5040	5055	5069	4925	4782	4769	4782																			
	7										4427	4049	4153	4250	4499	4919	4982	4791	4798	5018	5206	5246	5316	4886	4703	4832	-742	4090	
	8	4788	4698	4737	4643	4547	4587	4628	4692	4783	4789	4771	4734	4689	4680	4946	5742	6576	6893	7418	6989	5809	5297	5033	4972	5227	-772	4455	
	9	5251	5356	5197	5177	5156	5156	5156	5051	4972	5006	5017	5011	4998	4886	5046	5335	5719	6250	6756	6549	6280	5432	4773	4683	5342	-771	4571	
	10	5152	5364	5335	5306	5275	5250	5226	5189	5178	5190	5178	5163	5141	5074	5234	5524	5926	6470	6596	6577	6443	5928	5715	5470	5538	-779	4759	
	11	5410	5540	5361	5362	5361	5371	5382	5292	5228	5218	5185	5189	5185	5132	5150	5222	5465	6081	7002	7437	6793	5980	5077	4852	5553	-790	4763	
	12	4870	5198	5235	5213	5189	5136	5084	5106	5154	5192	5207	5261	5308	5012	5041	5170	5551	6310	6737	6737	6584	6147	5687	5415	5481	-779	4702	
	13	5354	5308	5329	5289	5248	5273	5298	5285	5298																			
	14										5287	5253	5239	5217	5180	5243	5457	5700	6016	6451	6570	6156	6027	5796	5544	5534	-779	4755	
	15	5557	5530	5462	5422	5380	5476	5572	5517	5488	5281	5051	5132	5206	5082	5406	5717	6000	6430	7253	6625	6067	5695	5376	5401	5630	-754	4876	
	16	5365	5364	5353	5339	5323	5361	5399	5309	5246	5258	5246	5300	5346	4988	5138	5595	6083	6387	6744	6688	6296	6119	5827	5477	5606	-705	4901	
	17	5456	5506	5441	5394	5345	5289	5234	5174	5140	5217	5270	5257	5237	5219	5429	5743	6240	6911	7224	7242	7152	6912	6336	5949	5805	-706	5099	
	18	5704	5682	5647	5588	5527	5514	5501	5427	5380	5418	5432	5423	5406	5358	5341	5532	5720	5832	5672	5303	5100	4995	5145	5475	5463	-675	4788	
	19	5557	5544	5550	5507	5463	5375	5288	5275	5288	5353	5395	5345	5287	5221	5179	5406	5715	6276	6190	5824	5606	5560	5560	5702	5519	-666	4853	
	20	5804	5739	5562	5563	5562	5506	5450	5437	5450																			
	21										5429	5384	5392	5393	5266	5266	5309	5412	5633	5698	5756	5889	5698	5814	6013	5559	-679	4880	
	22	5924	5655	5584	5551	5517	5480	5443	5404	5392	5382	5349	5365	5374	5329	5477	5908	6433	7879	8365	7930	7061	6609	6019	6117	6023	-710	5313	
	23	6386	6140	5910	5911	5910	5795	5680	5669	5685	5674	5640	5675	5702	5467	5761	6541	7599	8612	8846	8377	7677	6699	6610	6298	6428	-779	5649	
	24	6101	6140	6059	6075	6089	6048	6008	5787	5593	5633	5650	5618	5578	5592	5683	6351	7558	8523	8673	8387	7889	7016	6233	6025	6430	-748	5682	
	25	6068	6138	6081	6013	5943	5868	5793	5719	5671	5646	5597	5597	5589	5557	5637	6181	6825	7622	7750	7318	6721	6181	5919	6000	6143	-663	5480	
	26	6155	6062	6080	5966	5850	5806	5762	5659	5582	5564	5522	5596	5662	5633	5812	6127	6455	6665	6454	5930	6250	6332	6532	6696	6006	-514	5492	
	27	5865	6191	6075	6010	5943	5962	5981	5900	5846																			
	28										5798	5726	5490	5246	5523	5911	6447	6662	6917	7133	7161	7038	6838	6890	6862	6226	-539	5687	
	29	6459	5809	5888	5758	5626	5626	5626	5667	5735	5766	5774	6671	7561	7127	6984	7490	6156	6455	6740	7052	6635	6147	5749	5947	6269	-574	5695	
	30	5290	5137	5163	5227	5289	5288	5287	5230	5200	5205	5187	5226	5257	5106	5133	5624	6519	7348	7441	7319	7153	6836	6327	6099	5787	-643	5144	
Means.....	5530	5509	5429	5393	5356	5337	5319	5255	5224	5220	5191	5227	5254	5175	5331	5686	6056	6514	6821	6718	6432	5951	5658	5610	5633				
Temp. Corrections	-771	-762	-749	-735	-725	-715	-709	-698	-693	-683	-679	-667	-659	-643	-634	-638	-654	-668	-679	-699	-718	-740	-760	-773		-702			
Corrected Means	.....																												

$$k = a \cot \theta \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cot 73^\circ 25' \times \left(\frac{6.897}{15.082} \right)^2 = 0.0004537 \quad \frac{q}{k} = \frac{360}{0.45} = 7.936 = 1 \text{ Faht.} \quad \text{Zero } 80.0 \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER.—(Uncorrected.)

Gottingen Mean Time.		Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Mean.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
P. M.																												
Madras Mean Time.																												

$$k = a \cot. \theta \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cot. 7^\circ 37' 36'' \times \left(\frac{6.898}{8.852} \right)^2 = .00013197$$

$$\frac{q}{k} = \frac{-360}{-132} \quad 2.728 = 1^\circ \text{ Faht.} \quad \text{Zero } 80.0^\circ \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER—(Uncorrected.)

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.		P.M. 4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41				
NOVEMBER 1851. Vertical Force Magnetometer.																													
	1	5179	5014	4946	4940	4946	4936	4946	4906	4886	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4836	-23	4813
	2	—	—	—	—	—	—	—	—	—	—	4771	4672	4669	4627	4504	4525	4675	4578	4479	4436	4861	5216	5198	5139	5017	4619	25	4644
	3	4884	4962	4937	4852	4780	4660	4559	4572	4605	4578	4566	4472	4340	4288	4288	4301	4477	4450	4566	4795	4895	4720	4552	4746	4619	25	4644	
	4	4783	4686	4686	4499	4324	4305	4305	4285	4286	4278	4286	4269	4213	4189	4280	4416	4866	5285	5285	5308	5540	5495	5110	5026	4667	27	4694	
	5	4811	4592	4559	4472	4389	4235	4101	4098	4116	4120	4139	4140	4102	4050	3865	3857	4073	4432	4458	4458	4588	4808	4767	4610	4327	18	4345	
	6	4383	4307	4277	4271	4277	4149	4040	4004	3988	3971	3969	3955	3902	3849	3849	4021	4328	4373	4339	4366	4393	4393	4197	4242	4160	50	4210	
	7	4168	4155	4080	4064	4061	4036	4030	3950	3891	3883	3891	3891	3910	3891	3827	3877	4052	4313	4463	4124	4036	4117	4293	4230	4132	4061	25	4086
	8	4028	3934	3929	3912	3907	3862	3836	3824	3833	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	9	—	—	—	—	—	—	—	—	—	—	3813	3808	3757	3667	3586	3451	3432	3560	3890	4105	4121	4086	3964	3905	3905	3838	-26	3812
	10	4173	4074	4018	3886	3767	3716	3685	3570	3475	3454	3448	3382	3278	3253	3293	2995	3231	3396	3712	4229	4333	4015	3733	3652	3657	-46	3611	
	11	3813	3864	3818	3631	3456	3517	3598	3445	3312	3324	3351	3447	3505	3512	3427	3440	3680	3925	4143	3919	4005	3779	3521	3606	3627	-50	3577	
	12	3624	3583	3587	3564	3553	3502	3470	3503	3556	3500	3459	3437	3377	3358	3138	3214	3472	3716	3674	3745	3641	3615	3505	3439	3510	-49	3461	
	13	3577	3589	3569	3563	3569	3530	3510	3489	3489	3429	3385	3386	3349	3246	3122	3002	3326	3608	3791	4026	3975	3933	3752	3533	3531	-41	3490	
	14	3619	3580	3529	3455	3393	3432	3491	3442	3414	3386	3374	3368	3323	2936	2824	2824	3432	3457	3138	2986	2775	2687	2719	2874	3227	-29	3198	
	15	3113	3050	3015	3009	3015	2976	2957	2947	2957	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	16	—	—	—	—	—	—	—	—	—	—	2960	2979	2989	2961	2925	2945	2849	2904	2978	2916	2964	2980	3156	3114	3218	2995	-9	2986
	17	3276	3160	3074	3090	3119	3016	2932	2860	2808	2813	2834	2853	2834	2751	2847	2804	2935	3151	3151	3179	3161	3161	3326	3430	3024	-24	3000	
	18	3243	3002	2937	2931	2937	2886	2855	2841	2847	2826	2820	2782	2705	2574	2610	2717	2900	2790	2844	2661	2528	2681	2893	2960	2824	-37	2787	
	19	2960	2825	2808	2790	2785	2743	2721	2691	2681	2643	2621	2603	2546	2378	2252	2410	2737	2737	2849	2735	2660	2976	2999	2974	2714	-33	2681	
	20	2974	2951	2951	2923	2907	2897	2907	2881	2875	2852	2845	2864	2845	2858	2858	2874	2878	2878	2901	2874	3048	3076	3095	3116	2922	-43	2879	
	21	3093	3093	3112	3104	3109	3099	3109	3113	3137	3129	3187	3158	3141	3141	3145	3154	3154	3154	3154	3382	1563	1102	0911	1864	2865	-53	2812	
	22	1707	1820	2000	1938	1888	1855	1841	1803	1785	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	23	—	—	—	—	—	—	—	—	—	—	1879	1988	1978	1930	1930	1967	1951	2050	2254	2368	2407	2358	2277	2361	2305	2027	-71	1956
	24	2263	2263	2235	2238	2253	2243	2253	2176	2120	2138	2172	2191	2172	2101	2101	2027	2090	2120	2348	2432	2386	2295	2241	2186	2210	-82	2128	
	25	2186	2255	2290	2257	2237	2257	2296	2267	2259	2272	2301	2302	2264	2212	2212	2317	2599	2857	2414	2442	2298	2231	2194	2194	2309	-77	2232	
	26	2213	2184	2161	2147	2145	2143	2161	2144	2147	2145	2159	2178	2159	2126	2105	2105	2284	2380	2620	2656	2590	2596	2650	2601	2283	-66	2217	
	27	2522	2468	2474	2483	2505	2485	2484	2471	2478	2470	2478	2505	2494	2494	2494	2510	2546	2576	2740	2867	2814	2814	2741	2710	2568	-40	2528	
	28	2710	2697	2707	2691	2687	2678	2689	2680	2691	2685	2695	2704	2674	2680	2697	2752	2658	2696	2735	2729	2716	2677	2653	2626	2692	1	2693	
	29	2626	2592	2602	2594	2598	2585	2591	2574	2577	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	2568	2575	2594	2575	2580	2556	2556	2556	2611	2653	2679	2663	2663	2832	2809	2617	5	2622
Means.....	3437	3388	3372	3332	3304	3270	3255	3221	3209	3195	3198	3196	3155	3094	3069	3090	3265	3386	3419	3494	3413	3384	3326	3351	3284	3284			
Temp. Corrections	-37	-33	-30	-27	-26	-24	-25	-23	-23	-22	-22	-20	-19	-16	-16	-19	-21	-24	-27	-29	-32	-35	-37	-					

$$k = a \cot \theta \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cot 7.38.11'' \times \left(\frac{6.899}{10.744} \right)^2 = 0.00008949 \quad \frac{q}{k} = \frac{.369}{.089} = 4.023 = 1 \text{ Faht.} \quad \text{Zero } 80.0 \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER.—(Uncorrected.)

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$	
Madras Mean Time.		P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41					
DECEMBER 1851. Vertical Force Magnetometer.	†1	2633	2614	2614	2616	2609	2608	2591	2575	2591	2581	2576	2584	2576	2573	2589	2564	2564	2578	2576	2612	2680	2680	2633	2633					
	†2	2633	2617	2617	2580	2534	2532	2514	2472	2462	2447	2436	2454	2456	2445	2439	2166	2177	2177	2245	2323	2403	2403	2376	2376					
	†3	2310	2262	2247	2255	2255	2563	2255	2241	2260	2247	2239	2247	2239	2232	2223	2226	2220	2261	2261	2261	2284	2284	2284	2260					
	†4	2260	2260	2260	2277	2285	2293	2285	2260	2268	2257	2250	2264	2262	2264	2264	2235	2253	2279	2279	2324	2365	2365	2365	2342					
	†5	2342	2342	2342	2339	2328	2337	2330	2314	2330	2319	2313	2321	2313	2298	2308	2322	2279	2292	2347	2347	2347	2364	2364	2313					
	†6	2271	2250	2271	2270	2260	2279	2281	2265	2281	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	†7	—	—	—	—	—	—	—	—	—	2279	2281	2284	2271	2271	2277	2267	2283	2306	2306	2279	2256	2256	2296	2296					
	†8	2296	2296	2296	2296	2288	2289	2274	2258	2274	2258	2247	2255	2247	2247	2273	4247	4351	4434	4607	4629	4640	4676	4410	4364					
	9	4364	4353	4418	4422	4418	4416	4397	4334	4304	4352	4405	4395	4370	4334	4279	4276	4334	4412	4439	4475	4426	4426	4442	4529	4388	17	4405		
	10	4490	4476	4476	4447	4410	4439	4451	4426	4433	4477	4525	4517	4494	4464	4428	4534	4703	4831	4851	4851	4832	4832	4685	4685	4573	27	4600		
	11	4685	4676	4698	4673	4639	4647	4639	4624	4642	4617	4596	4618	4624	4603	4587	4626	4738	4775	4741	4639	4445	4445	4520	4592	4629	50	4679		
	12	4633	4633	4636	4603	4561	4584	4591	4569	4580	4617	4659	4658	4641	4565	4523	4635	4740	4872	4988	4958	4874	4708	4309	3919	4627	62	4689		
	13	3978	3909	3909	3913	3909	3952	3978	3962	3978	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	14	—	—	—	—	—	—	—	—	—	3693	3412	3414	3401	3312	3301	3333	3440	3554	3514	3514	3500	3573	3573	3491	3646	39	3685		
	15	3491	3491	3440	3438	3427	3435	3427	3400	3405	3399	3397	3405	3397	3356	3334	3363	3411	3523	3523	3686	3752	3674	3674	3711	3482	2	3484		
	16	3560	3437	3437	3496	3547	3439	3315	3344	3405	3403	3405	3392	3364	3352	3389	3427	3501	3646	3678	3697	3697	3709	3735	3651	3501	-14	3487		
	17	3601	3537	3537	3490	3435	3443	3435	3400	3398	3405	3416	3406	3381	3381	3385	3455	3524	3524	3512	3586	3445	3559	3624	3677	3482	-22	3460		
	18	3636	3544	3544	3548	3544	3498	3436	3420	3437	3447	3461	3469	3461	3435	3492	3574	3698	3719	4009	3811	3855	3873	3754	3838	3604	-12	3592		
	19	3886	3660	3714	3697	3672	3680	3672	3639	3638	3619	3605	3613	3605	3576	3658	4010	4243	4328	4292	4292	4265	4102	4157	4250	3870	27	3897		
	20	4196	4129	4113	4117	4113	4084	4039	4032	4058	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	21	—	—	—	—	—	—	—	—	—	4039	4024	4032	4024	4046	4199	4145	4453	4453	4431	4431	4511	4332	4352	4367	4197	41	4238		
	22	4294	4294	4434	4375	4308	4264	4203	4177	4183	4197	4215	4223	4215	4153	4153	4208	4448	4673	4504	4178	4099	4064	3999	4089	4248	49	4297		
	23	4230	4216	4279	4263	4239	4247	4239	4172	4157	4176	4200	4208	4200	4124	4124	4092	4401	4584	4677	4777	4777	4777	4483	4412	4336	68	4404		
	24	4503	4413	4321	4325	4321	4304	4271	4246	4253	4266	4284	4275	4250	4225	4225	4097	4235	4473	4688	4761	4915	4905	4702	4580	4410	80	4490		
	25	4475	4406	4402	4386	4361	4349	4320	4317	4346	4315	4288	4305	4307	4307	4409	4409	4585	4709	4946	5005	4912	4680	4560	4507	4484	82	4566		
	26	4520	4425	4407	4474	4533	4473	4397	4356	4347	4327	4311	4356	4385	4359	4227	4346	4512	4733	4911	4775	4687	4718	4579	4465	4484	93	4577		
	27	4407	4483	4433	4413	4384	4370	4340	4317	4326	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	28	—	—	—	—	—	—	—	—	—	4497	4673	4444	4199	4174	4240	4142	4009	4007	4051	4122	4153	4312	4367	4367	4301	77	4378		
	29	4394	4372	4277	4296	4306	4314	4306	4332	4391	4242	4097	4105	4097	4097	4225	4180	4160	4285	4308	4284	4520	4474	4533	4054	4277	59	4336		
	30	4054	4135	4171	4178	4177	4130	4066	4070	4107	4136	4170	4176	4166	4063	4102	4221	4293	4477											

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 22^d JANUARY 1851, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		WEDNESDAY, 22D JANUARY, 1851.														THURSDAY, 23RD JANUARY, 1851.										
		p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0	0	1642	1643	1643	1642	1641	1640	1650	1644	1623	1610	1614	1602	1610	1630	1640	1631	1636	1631	1631	1632	1637	1640	1640	1638
	5	0	42	43	43	42	43	42	50	42	20	10	15	02	11	30	40	30	37	31	31	32	37	40	40	38
	10	0	41	43	43	42	44	43	50	42	19	10	16	02	12	33	40	30	39	31	32	32	38	40	40	38
	15	0	40	43	44	42	45	42	50	40	18	10	15	02	12	37	40	30	39	32	32	32	38	40	40	39
	20	0	40	43	44	42	43	44	50	39	14	11	12	04	14	38	41	29	38	32	32	32	38	40	40	38
	25	0	40	43	44	41	41	45	50	39	13	10	11	04	15	39	39	29	37	32	31	32	39	40	39	37
	30	0	40	42	43	41	41	46	50	36	12	10	11	06	18	40	38	28	36	31	31	32	39	40	39	35
	35	0	40	42	43	41	41	48	50	34	11	10	10	07	20	40	36	28	35	31	31	33	38	40	38	33
	40	0	40	42	43	41	41	49	49	32	10	11	10	09	20	41	34	30	33	31	31	34	41	40	38	32
	45	0	40	42	43	41	40	49	49	29	10	11	04	09	20	41	33	30	32	31	31	34	42	40	38	32
	50	0	42	42	43	40	39	49	48	28	10	14	04	09	22	40	32	31	32	31	31	35	42	40	38	32
	55	0	42	42	43	40	38	49	46	25	10	14	02	09	22	40	31	32	32	31	32	36	42	40	38	32
HORIZONTAL FORCE.	2	0	1330	1322	1340	1347	1310	1285	1222	1155	1062	1042	1092	1182	1244	1289	1290	1318	1380	1332	1320	1346	1337	1353	1357	1350
	7	0	30	24	40	47	12	81	15	40	52	49	1100	86	48	90	97	19	83	30	28	48	38	51	57	50
	12	0	26	24	40	45	14	79	14	38	42	50	08	89	52	85	1300	24	85	30	34	49	39	49	57	50
	17	0	20	28	42	45	13	72	17	20	47	51	12	92	58	81	01	30	82	30	37	51	40	43	58	50
	22	0	14	33	44	40	12	65	12	20	44	54	22	1205	60	82	1296	30	79	30	38	46	34	47	58	41
	27	0	12	36	44	32	02	62	05	12	40	58	35	12	62	82	1300	32	75	26	40	38	32	50	57	30
	32	0	10	36	47	27	1297	54	1196	13	34	59	43	17	68	85	02	38	72	22	41	34	37	50	57	27
	37	0	10	38	50	16	93	50	90	1098	32	63	48	24	72	88	08	38	70	20	41	32	40	50	50	23
	42	0	07	40	50	08	90	43	79	90	36	70	50	37	76	90	12	60	67	20	42	30	47	52	52	18
	47	0	06	40	50	06	88	40	71	77	34	72	62	39	78	98	12	66	61	24	43	30	50	53	52	20
	52	0	10	40	50	08	85	30	68	65	35	80	64	40	82	97	14	70	50	28	44	31	52	57	51	20
	57	0	15	40	48	08	85	26	62	67	35	84	68	43	84	92	16	76	40	26	45	34	57	58	50	20
	Faht....			79.1	79.1	79.1	79.0	79.0	78.6	78.4	78.8	79.0	79.4	79.7	79.9	89.1	80.2	80.2	80.0	80.0	80.0	80.0	80.0	80.0	79.9	80.0
Attached Thermometer...			79.1	79.1	79.1	79.0	79.0	78.6	78.4	78.8	79.0	79.4	79.7	79.9	89.1	80.2	80.2	80.0	80.0	80.0	80.0	80.0	80.0	79.9	80.0	80.0
VERTICAL FORCE.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	3	0	1210	1307	1306	1307	1181	1244	1320	1360	1652	1894	1885	1750	1471	1308	1265	1319	1520	1278	1279	1369	1341	1428	1356	1375
	8	0	10	07	06	07	81	72	31	79	88	94	85	50	50	08	46	19	20	78	79	69	41	28	56	75
	13	0	10	07	06	07	81	72	37	79	1718	94	85	28	50	1260	46	47	20	78	79	69	41	28	56	75
	18	0	10	07	06	07	81	72	37	1425	48	81	79	13	50	32	78	67	1474	78	79	69	41	28	56	75
	23	0	10	37	06	07	95	65	61	25	88	81	79	1612	1399	16	54	67	74	78	1341	41	41	28	56	21
	28	0	10	37	06	07	1219	25	61	65	1818	72	79	1599	99	16	65	95	74	78	41	41	41	29	56	21
	33	0	52	37	06	1201	04	30	67	87	49	72	88	64	69	19	65	95	74	78	41	41	41	28	37	1283
	38	0	52	37	52	01	19	30	65	1605	66	72	88	64	69	19	96	95	08	78	41	41	41	28	37	83
	43	0	52	37	52	01	27	35	72	1530	66	86	88	16	43	30	96	1467	08	78	41	41	41	28	37	30
	48	0	52	37	52	1147	27	55	72	47	66	86	34	16	43	30	1302	67	08	78	41	41	41	28	37	30
	53	0	52	37	52	47	37	68	95	76	66	92	34	06	29	51	02	67	1333	78	41	41	74	28	37	30
	58	0	52	37	52	47	1337	90	95	1603	96	92	34	06	29	51	1257	67	33	78	69	41	74	28	37	30
Faht....			79.2	79.2	79.2	78.8	78.6	78.5	78.4	78.7	79.4	79.5	79.7	80.0	80.2	80.2	80.3	80.1	80.1	79.6	79.7	79.6	79.5	79.5	79.7	79.7
Attached Thermometer...			79.2	79.2																						

COMMENCING AT 10 P. M. 28TH FEBRUARY 1851, GOTTINGEN MEAN TIME.

* The observer went to shift the Anemometer Board.

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. 19TH MARCH 1851, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,										COMMENCING AT 10 P. M. 19TH MARCH 1851, GOTTINGEN MEAN TIME.																			
GOTTINGEN MEAN TIME.										WEDNESDAY, 19TH MARCH 1851.										THURSDAY, 20TH MARCH, 1851.									
										p.m.																			
										10 11 12 13 14 15 16 17 18 19 20 21 22 23										Noon 1 2 3 4 5 6 7 8 9									
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.			
	0	0	1630	1630	1630	1629	1630	1634	1640	1638	1627	1611	1602	1612	1620	1628	1630	1625	1620	1628	1630	1631	1630	1641	1647	1648			
	5	0	30	30	30	29	31	34	40	38	25	10	07	12	20	28	30	25	20	28	30	30	30	40	47	48			
	10	0	30	30	30	29	32	35	41	37	23	09	07	14	21	27	30	24	20	28	31	30	34	40	47	48			
	15	0	30	30	30	30	34	35	41	38	22	09	09	15	22	27	30	24	22	28	30	30	34	41	48	46			
	20	0	29	30	30	30	36	35	41	38	20	08	10	17	22	26	30	23	23	29	31	30	34	41	48	45			
	25	0	30	30	30	30	36	36	41	37	19	06	10	17	22	26	30	22	23	30	30	31	34	41	48	45			
	30	0	30	30	30	30	36	36	42	31	18	02	11	17	23	27	29	20	23	32	31	31	36	41	48	45			
	35	0	30	30	30	28	35	36	42	30	18	01	11	17	23	27	28	20	24	33	31	30	39	42	48	44			
	40	0	30	30	30	28	35	36	41	31	18	01	11	19	25	27	29	20	25	34	30	30	39	42	49	44			
	45	0	30	30	30	28	35	37	41	29	13	01	11	19	25	28	29	21	27	34	31	29	39	43	48	44			
	50	0	30	30	29	28	35	39	40	29	11	00	12	20	25	28	28	22	27	32	31	28	39	44	48	44			
55	0	30	30	29	29	34	39	39	28	10	00	12	20	26	30	26	22	27	32	30	30	40	47	48	46				
HORIZONTAL FORCE.	2	0	1273	1270	1270	1272	1260	1178	1082	993	958	954	1004	1094	1160	1220	1209	1242	1267	1310	1390	1472	1476	1470	1418	1394			
	7	0	72	70	70	72	54	74	79	992	54	56	20	65	65	20	11	47	69	10	1420	77	70	74	14	92			
	12	0	72	70	70	72	50	72	73	991	49	56	20	80	86	22	17	49	70	12	10	79	60	70	10	91			
	17	0	71	70	70	70	49	70	67	993	51	60	24	96	98	24	15	49	75	07	24	78	65	66	10	91			
	22	0	70	70	70	70	48	58	61	1000	40	70	38	92	1200	27	12	50	81	10	40	73	50	59	06	91			
	27	0	70	72	70	70	47	47	58	997	37	80	44	1110	00	30	20	47	86	22	54	70	48	52	00	90			
	32	0	71	72	70	70	45	39	54	978	41	89	54	20	00	31	27	46	88	42	62	50	45	50	00	90			
	37	0	70	72	70	65	29	23	51	973	44	90	64	24	00	28	35	47	90	46	75	40	43	58	00	90			
	42	0	70	72	70	60	1198	09	39	968	48	88	68	40	00	27	45	47	90	58	80	38	40	54	00	90			
	47	0	70	72	70	60	95	00	30	962	52	91	70	44	10	18	50	52	90	62	80	40	46	50	00	90			
	52	0	70	72	72	60	87	1089	00	961	50	94	80	70	10	07	50	60	90	72	80	42	51	40	00	84			
	57	0	70	70	72	60	78	84	996	959	52	96	82	75	12	12	49	62	92	80	76	40	60	29	1395	81			
Faht...			82.6	82.8	82.7	82.7	82.2	82.2	82.3	82.6	83.1	83.7	84.0	84.4	84.6	85.0	84.9	84.7	84.3	84.2	84.1	84.2	84.0	83.8	83.6	83.6			
Attached Thermometer...			82.6	82.8	82.7	82.7	82.2	82.2	82.3	82.6	83.1	83.7	84.0	84.4	84.6	85.0	84.9	84.7	84.3	84.2	84.1	84.2	84.0	83.8	83.6	83.6			
VERTICAL FORCE.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.			
	3	0	1589	1550	1543	1513	1454	1396	1557	1717	1989	2260	2290	2121	1895	1798	1514	1596	1669	1705	1874	1824	1688	1673	1532	1516			
	8	0	89	50	43	13	54	96	57	17	2001	60	90	2099	95	98	14	96	69	05	74	24	88	73	32	16			
	13	0	89	50	43	13	54	1420	1605	53	22	90	2303	99	72	22	14	96	69	05	89	24	1712	73	32	16			
	18	0	80	50	43	13	60	45	05	70	36	90	03	69	72	22	14	96	69	1680	89	1737	12	73	32	16			
	23	0	80	50	43	13	60	47	05	70	55	2317	2246	47	72	22	14	96	69	80	1932	37	12	88	32	16			
	28	0	80	50	43	13	60	69	05	1841	70	17	21	15	72	22	1555	1666	69	1703	32	37	1618	88	16	16			
	33	0	80	50	43	13	60	61	28	41	92	17	2183	1996	44	22	55	66	69	55	32	37	18	88	16	16			
	38	0	80	50	43	13	1381	61	47	41	98	06	60	96	44	1638	1600	66	80	55	32	37	1543	88	16	16			
	43	0	80	50	43	1445	81	61	47	1901	2140	06	60	96	1798	38	00	66	80	1809	32	1577	43	88	16	16			
	48	0	62	50	43	45	86	1502	66	19	40	06	60	96	98	1566	16	1717	80	09	1898	77	43	1594	16	16			
	53	0	62	50	43	45	91	27	66	34	93	06	80	43	98	66	16	17	80	09	98	77	76	94	16	16			
58	0	62	50	43	45	91	27	66	65	2231	06	80	43	98	66	16	17	80	09	98	77	76	94	16	1487				
Faht...			82.4	82.5	82.4	82.2	82.0	82.0	82.3	82.5	83.2	83.8	84.2	84.5	84.7	85.0	84.9	84.7	84.3	84.3	84.3	84.0	83.53						

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. 23RD APRIL 1851, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,										COMMENCING AT 10 P. M. 23RD APRIL 1851, GOTTINGEN MEAN TIME.																
Gottingen Mean Time			WEDNESDAY, 23RD APRIL 1851.													THURSDAY, 24TH APRIL 1851.										
			p.m.	10	11	12	13	14	15	16	17	18	10	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0	0	1650	1650	1647	1645	1663	1662	1656	1648	1630	1632	1630	1636	1641	1640	1646	1648	1648	1642	1638	1640	1640	1641	1640	1645
	5	0	50	50	45	47	63	62	56	48	31	32	31	36	41	40	46	49	46	42	38	40	40	41	41	45
	10	0	50	50	45	48	65	60	58	47	30	32	31	36	40	40	47	50	43	42	37	40	40	40	43	45
	15	0	60	50	45	50	65	60	55	44	30	30	32	36	40	40	48	50	41	41	37	40	41	40	45	46
	20	0	50	50	43	50	63	61	55	44	32	30	35	36	40	40	48	50	40	†	37	40	42	40	46	46
	25	0	50	50	43	52	63	60	54	40	32	30	33	36	40	*	48	50	39	40	37	40	43	40	47	47
	30	0	50	50	43	55	64	58	53	40	30	30	38	37	40	40	47	50	39	40	37	40	42	40	47	47
	35	0	50	50	43	57	62	58	52	39	32	28	38	37	40	42	47	50	39	40	38	40	42	40	49	46
	40	0	50	50	45	59	62	58	50	38	33	28	38	40	40	42	47	50	39	40	38	40	41	39	48	46
45	0	50	50	45	60	62	57	48	36	34	28	36	40	40	44	46	50	39	39	39	40	40	39	48	44	
50	0	50	47	47	60	62	56	48	33	34	29	36	40	40	46	46	52	40	38	38	40	40	38	46	43	
55	0	50	47	47	62	62	55	48	31	32	29	36	40	40	48	47	50	40	38	39	40	40	38	45	43	
HORIZONTAL FORCE.	2	0	1433	1445	1470	1475	1440	1392	1332	1302	1250	1340	1365	1460	1450	1460	1460	1473	1490	1520	1520	1529	1526	1503	1500	1491
	7	0	32	45	72	73	36	85	42	1298	70	50	90	65	60	64	60	77	90	21	20	29	26	03	1499	90
	12	0	30	47	72	73	30	75	48	97	92	70	1404	50	50	69	59	80	92	24	20	29	27	00	97	90
	17	0	30	50	75	70	25	68	32	89	1320	70	20	56	48	71	57	82	92	31	21	29	21	00	97	90
	22	0	30	55	75	70	23	62	28	92	42	80	48	50	50	73	58	85	93	†	21	29	17	00	97	90
	27	0	30	57	77	70	20	35	18	89	50	70	52	60	50	*	59	88	97	27	22	29	09	00	97	90
	32	0	30	60	75	68	16	10	27	62	40	80	62	40	50	70	60	87	97	21	26	27	10	1497	95	91
	37	0	30	60	75	65	12	03	17	80	50	75	70	40	49	68	60	85	98	20	27	27	10	1505	96	91
	42	0	33	66	75	63	15	02	15	87	50	70	70	50	48	65	64	83	1500	20	28	26	09	05	96	91
	47	0	38	70	77	60	12	1293	70	40	70	62	50	53	66	66	67	83	02	20	29	27	06	07	95	87
52	0	40	70	77	56	05	17	89	70	30	52	75	50	60	64	70	83	03	21	31	27	05	08	90	85	
57	0	42	70	75	50	1398	20	1300	50	30	50	70	50	60	62	71	86	10	20	30	27	05	09	88	84	
Faht...			87°0	87°0	87°0	87°0	87°1	87°1	87°3	87°7	88°3	88°9	89°2	89°4	89°4	89°3	89°2	89°0	89°0	89°0	89°0	88°9	88°7	88°7	88°5	
Attached Thermometer...			87°0	87°0	87°0	87°0	87°1	87°1	87°3	87°7	88°3	88°9	89°2	89°4	89°4	89°3	89°2	89°0	89°0	89°0	89°0	88°9	88°7	88°7	88°5	
VERTICAL FORCE.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	3	0	768	760	735	671	707	804	980	1115	1274	966	1005	765	754	870	852	802	759	758	680	694	660	577	609	616
	8	0	768	760	735	671	707	804	980	1115	1274	966	1005	765	754	870	852	802	759	758	680	694	660	577	609	616
	13	0	768	760	735	671	707	820	1004	1115	1274	966	1005	765	754	870	852	802	759	758	680	694	660	577	609	616
	18	0	738	760	735	671	707	850	41	02	87	941	952	772	754	870	852	802	759	767	680	704	591	577	609	616
	23	0	738	760	735	671	707	874	65	1092	1057	891	952	772	754	870	852	802	759	†	678	704	591	577	609	644
	28	0	738	760	735	671	707	912	60	92	1248	891	913	772	784	*	852	802	726	724	678	704	586	577	609	644
	33	0	738	760	735	671	728	918	71	1129	1246	891	913	661	784	870	852	802	726	697	678	686	586	577	609	644
	38	0	738	760	735	671	748	957	71	29	1246	860	839	661	784	826	814	802	726	683	703	686	586	577	609	644
	43	0	738	760	716	671	748	970	84	09	1246	860	819	661	814	826	814	789	726	681	703	686	586	573	609	644
48	0	738	760	716	671	751	970	1100	37	946	860	819	661	814	826	814	789	726	681	703	686	582	573	609	644	
53	0	738	760	716	671	763	959	13	29	946	956	765	702	814	826	814	789	745	681	703	686	582	573	609	644	
58	0	738	760	716	694	7597																				

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. 30TH MAY 1851, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. 30TH MAY 1851, GOTTINGEN MEAN TIME.																									
Göttingen Mean Time.		FRIDAY, 30TH MAY, 1851.															SATURDAY, 31st MAY, 1851.										
		p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9	
MAGNETICAL OBSERVATIONS.	DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0	0	1639	1631	1630	1629	1644	1653	1659	1652	1630	1610	1601	1608	1619	1630	1630	1627	1624	1612	1620	1622	1625	1628	1629	1630	
	5	0	39	32	31	29	48	55	59	52	29	10	02	08	20	31	30	28	26	12	20	22	25	28	29	30	
	10	0	39	31	31	30	48	57	59	51	28	10	02	10	20	30	30	28	26	11	20	22	25	28	29	30	
	15	0	38	31	30	30	49	58	59	49	25	10	02	10	20	30	31	28	20	11	20	22	25	28	30	30	
	20	0	38	31	30	32	49	58	58	48	21	10	02	12	20	30	30	29	20	12	21	22	27	28	30	30	
	25	0	37	33	29	34	49	59	57	48	21	09	02	12	22	30	30	28	20	12	21	23	28	28	30	30	
	30	0	37	31	30	36	50	59	58	48	20	08	03	12	22	30	29	29	19	13	22	23	28	28	30	30	
	35	0	33	31	29	38	51	59	58	43	18	05	03	15	22	31	30	28	18	15	22	23	28	28	30	30	
	40	0	33	30	30	39	51	59	57	40	15	02	05	16	23	30	29	29	16	16	22	24	28	28	30	30	
	45	0	32	29	31	40	51	60	56	40	13	02	06	17	26	30	28	29	15	18	22	24	28	28	39	30	
	50	0	31	30	28	41	52	59	55	32	10	01	07	18	27	30	27	26	14	18	22	24	28	28	30	30	
	55	0	31	30	28	40	53	59	54	31	10	01	08	19	28	30	28	24	12	19	22	25	28	28	30	30	
	HORIZONTAL FORCE.	2	0	1354	1348	1342	1342	1332	1330	1260	1239	1198	1200	1210	1280	1320	1356	1370	1360	1360	1363	1368	1370	1370	1372	1370	1370
	7	0	53	46	40	44	30	26	50	36	83	00	13	83	30	50	72	60	60	64	69	70	70	72	70	70	
	12	0	54	48	42	48	30	20	48	25	98	00	20	85	30	58	68	64	64	65	69	70	70	72	70	70	
	17	0	53	44	42	48	40	15	46	20	94	00	30	85	38	60	68	60	60	65	69	70	70	72	70	70	
22	0	61	46	44	40	41	11	43	18	93	05	33	97	45	60	66	64	60	65	68	70	70	72	70	69		
27	0	61	44	46	40	43	00	40	20	90	05	40	1300	50	60	69	70	62	65	69	70	71	72	70	69		
32	0	52	44	42	40	46	1295	39	18	91	10	47	13	50	64	66	60	60	65	69	70	71	72	70	69		
37	0	52	44	44	38	47	90	38	08	97	10	50	12	52	68	68	60	60	65	70	70	71	72	70	69		
42	0	50	46	48	39	48	82	37	00	95	10	60	17	52	68	64	62	60	65	70	70	71	70	70	69		
47	0	48	42	42	36	47	70	35	00	95	10	66	26	53	66	60	60	60	65	70	70	72	70	70	69		
52	0	48	46	42	34	40	67	36	1198	95	10	70	20	53	70	62	60	60	65	70	70	72	70	70	69		
57	0	48	42	42	32	36	62	37	98	1200	10	75	20	53	72	70	64	61	67	70	70	72	70	70	69		
Faht....		87.0	87.0	87.0	86.9	87.0	86.9	86.9	87.1	87.3	87.9	88.0	88.3	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	88.9	88.9	88.9	88.9		
Attached Thermometer...		87.0	87.0	87.0	86.8	86.9	86.7	86.8	87.0	87.4	87.7	88.0	88.3	88.7	89.0	89.0	89.0	88.8	88.7	88.7	88.5	88.5	88.5	88.3	88.3	88.2	
VERTICAL FORCE.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
3	0	228	207	185	90	40	105	-9	330	614	660	655	641	536	357	307	268	321	276	304	270	244	258	195	202		
8	0	15	07	85	90	40	-5	43	63	24	60	55	41	36	57	07	68	21	76	04	70	44	58	95	02		
13	0	15	07	41	90	40	-20	74	433	35	24	55	41	36	57	07	68	21	76	04	70	44	58	95	02		
18	0	15	169	41	90	21	-20	83	72	51	24	55	41	485	43	07	68	21	76	04	70	44	58	95	02		
23	0	194	69	41	68	06	-16	102	89	51	24	20	30	85	43	07	68	21	76	04	70	45	17	95	02		
28	0	80	69	41	68	09	-11	23	89	55	24	20	30	85	43	280	68	21	76	04	70	45	17	95	02		
33	0	99	69	41	68	-47	-82	23	89	65	50	20	30	85	43	80	68	21	76	270	70	65	17	95	02		
38	0	76	93	31	60	-70	-51	54	516	69	50	20	10	12	43	80	68	21	76	70	70	58	17	71	02		
43	0	76	93	31	60	-95	-43	83	16	69	50	30	10	12	43	80	68	21	76	70	44	58	17	71	02		
48	0	76	93	31	60	-110	-17	212	84	69	50	30	567	12	43	80	68	276	76	70	44	58	17	71	02		
53	0	92	46	31	40	-105	-9	50	71	67	59	30	67	398	43	80	68	76	76	70	44	58	17	71	02		
58	0	92	46	90	40	-105	-9	85	614	67	59	30	67	98	43	80	68	76	304	70	44	58	17	71	02		
Faht....		87.0	87.0	87.0	86.8	86.9	86.7	86.8	87.0	87.4	87.7	88.0	88.3	88.7	89.0	89.0	88.8										

COMMENCING AT 10 P. M. 18TH JUNE 1851, GOTTINGEN MEAN TIME.

* Went to Anemometer.

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. 23^d JULY 1851, GOTTINGEN MEAN TIME.

		WEDNESDAY, 23D JULY, 1851.														THURSDAY, 24TH JULY, 1851.									
Gottingen Mean Time.		p.m.																							
		10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	s.	1650	1650	1650	1659	1680	1678	1670	1654	1636	1630	1620	1629	1640	1643	1646	1643	1640	1639	1638	1642	1643	1648	1653	1659
	0	50	50	52	60	80	77	69	54	36	29	21	30	40	43	44	45	40	39	38	42	43	48	53	59
	5	50	50	52	60	80	76	68	53	32	24	20	30	40	45	43	45	40	39	38	42	43	48	54	59
	10	50	50	53	62	78	76	65	52	31	22	21	30	41	46	41	45	40	39	39	42	44	48	55	59
	15	50	50	53	65	77	76	62	49	32	21	20	32	41	47	40	45	39	40	38	42	44	49	55	58
	20	50	50	53	67	77	77	61	49	32	21	21	32	42	47	40	44	37	40	38	42	44	50	56	56
	25	50	50	53	68	76	76	60	48	31	20	21	33	42	47	41	44	37	39	38	42	45	50	58	56
	30	50	50	54	68	76	75	60	46	30	23	21	33	41	47	42	44	37	39	38	42	46	50	58	55
	35	50	50	54	70	76	72	59	42	29	24	22	34	42	48	42	44	37	39	39	42	47	51	58	54
HORIZONTAL FORCE.	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	s.	1270	1280	1275	1270	1242	1219	1221	1148	1122	1120	1156	1178	1240	1266	1295	1307	1305	1318	1306	1310	1312	1298	1292	1280
	2	70	80	75	70	44	17	10	44	26	24	58	79	42	67	92	10	04	18	06	10	11	98	91	80
	7	73	80	75	70	44	12	09	40	18	32	60	86	50	69	90	12	07	18	05	10	10	97	90	80
	12	73	80	75	65	42	09	1192	35	12	34	60	92	52	70	87	10	10	18	04	10	07	96	90	80
	17	75	80	73	62	42	06	79	32	08	32	62	1200	54	75	82	10	10	16	06	10	04	95	88	80
	22	75	80	73	62	40	03	70	31	00	38	64	04	58	78	85	10	10	15	07	07	01	94	86	80
	27	75	77	73	58	39	02	60	29	1098	40	66	08	60	80	88	10	10	13	07	07	02	93	85	80
	32	75	77	70	58	37	00	52	28	1110	42	67	14	56	80	90	10	10	12	09	06	01	93	82	80
	37	75	77	70	53	35	00	59	26	14	46	58	20	52	84	90	10	12	11	10	09	00	93	82	80
VERTICAL FORCE.	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	s.	4937	4999	4950	4879	4894	5019	5319	5570	5700	5632	5310	5284	5332	5349	5337	5305	5135	5198	5002	5026	4940	4897	4902	4920
	3	37	99	50	79	94	61	19	70	00	32	10	84	32	49	37	05	35	98	02	26	40	97	02	20
	8	37	99	50	79	94	93	40	70	5679	32	10	84	32	49	5276	05	35	98	02	26	40	97	02	20
	13	37	99	25	79	94	5113	40	86	83	32	5293	84	82	49	76	05	35	67	02	26	45	97	02	20
	18	87	77	25	79	94	18	69	5600	83	5485	93	51	82	49	5195	05	66	67	02	07	45	97	02	20
	23	87	77	25	79	94	44	80	00	96	85	93	51	82	49	95	5261	66	67	06	07	27	97	02	20
	28	87	77	25	60	4914	44	5426	00	96	85	56	51	82	49	95	61	21	5080	06	07	27	97	02	20
	33	87	77	16	60	14	53	77	00	96	35	56	51	03	49	5255	61	21	80	06	07	27	98	02	20
	38	87	77	16	60	58	53	77	00	96	35	56	79	03	92	55	61	51	80	15	4964	27	98	02	20
INDUCTION INCLINO-METER.	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	s.	1630	1635	1635	1640	1653	1652	1647	1634	1620	1614	1610	1618	1628	1630	1632	1630	1626	1624	1622	1629	1630	1632	1645	1640
	0	32	35	36	40	53	51	46	34	21	14	10	19	29	30	30	31	26	24	22	29	30	32	43	40
	5	32	35	36	40	53	50	44	33	20	12	11	19	30	31	30	32	26	24	22	29	30	32	43	40
	10	33	35	38	40	51	50	42	32	20	11	11	20	30	32	30	32	26	25	23	29	31	32	42	40
	15	33	35	38	43	50	50	40	30	20	11	11	22	30	33	29	32	23	26	22	29	31	33	40	40
	20	34	35	38	43	49	50	39	30	20	11	11	22	31	33	29	31	21	26	22	29	31	33	40	40
	25	34	35	40	45	49	50	39	30	19	12	11	22	32	33	30	30	21	24	22	29	31	33	40	40
	30	34	35	40	47	49	49	39	27	18	14	10	24	32	33	30	30	21	24	23	29	31	36	40	39
	35	34	35	40	49	49	47	39	24	18	14	12	25	31	33	30	30	21	24	24	29	32	39	40	39
METEOROLOGICAL OBSERVATIONS.	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	s.	1630	1635	1635	1640	1653	1652	1647	1634	1620	1614	1610	1618	1628	1630	1632	1630	1626	1624	1622	1629	1630	1632	1645	1640
	0	32	35	36	40	53	51	46	34	21	14	10</													

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. 29TH AUGUST 1851, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. 29TH AUGUST 1851, GOTTINGEN MEAN TIME.																									
Göttingen Mean Time.		FRIDAY, 29TH AUGUST, 1851.															SATURDAY, 30TH AUGUST, 1851.										
		p.m. 10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9		
MAGNETICAL OBSERVATIONS.	DECLINATION.	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	0	1633	1640	1647	1645	1680	1696	1680	1664	1639	1620	1610	1599	1609	1632	1644	1650	1645	1640	1645	1642	1650	1638	1642	1647		
	5	34	41	49	47	86	95	81	61	39	19	11	99	09	33	45	50	44	40	45	42	49	40	42	46		
	10	36	42	49	49	90	95	78	62	33	16	11	99	09	34	43	50	45	40	45	42	48	40	43	50		
	15	38	43	49	51	88	94	73	60	33	13	11	1600	11	35	42	48	45	40	45	44	47	41	45	51		
	20	40	43	49	54	87	93	71	59	30	12	10	00	15	38	44	47	42	*	46	44	40	40	46	51		
	25	38	45	50	57	88	92	69	57	29	13	07	00	19	38	45	47	41	41	47	46	38	38	44	51		
	30	36	47	50	60	89	91	72	52	28	12	05	00	21	38	47	47	39	42	47	45	34	41	43	51		
	35	35	48	50	65	90	90	70	51	28	12	04	02	25	39	49	47	38	43	45	45	32	42	46	50		
	40	38	48	50	68	94	89	68	50	28	11	02	02	28	40	50	47	38	44	44	46	31	41	47	50		
	45	39	48	48	73	94	87	68	46	25	11	02	02	29	41	51	48	38	44	43	47	34	42	46	51		
	50	40	48	47	77	94	86	67	45	21	10	01	05	30	42	52	48	39	44	42	48	36	41	45	52		
	55	40	48	45	78	94	84	67	44	19	10	00	07	30	42	50	47	40	44	42	49	38	43	44	52		
	HORIZONTAL FORCE.	2	1305	1285	1330	1310	1312	1303	1254	1212	1133	1125	1104	1150	1260	1319	1320	1330	1327	1340	1379	1381	1395	1356	1374	1392	
		7	05	80	30	08	17	08	50	02	47	30	09	57	69	22	19	20	21	41	81	81	96	50	77	94	
		12	05	80	30	04	20	02	54	1187	39	30	14	62	77	25	20	20	28	43	81	80	91	60	79	1400	
		17	05	88	30	00	25	02	45	71	40	27	17	70	88	17	20	13	30	47	83	91	87	64	73	02	
		22	05	93	30	00	30	00	31	1208	49	22	24	76	94	19	20	08	37	*	86	91	92	60	70	10	
		27	03	1300	25	05	30	00	18	1180	45	20	20	83	1306	20	20	05	39	58	84	92	84	54	67	16	
		32	00	15	20	10	22	03	18	58	35	20	19	96	10	26	20	10	39	60	83	97	82	60	64	12	
		37	00	23	10	15	28	12	18	53	39	21	20	1207	14	30	20	18	30	61	82	1400	80	67	72	15	
		42	1293	28	07	17	31	06	10	59	41	19	22	21	14	28	22	20	30	64	81	1398	60	69	78	18	
		47	90	28	07	14	18	01	1191	39	42	17	27	30	16	30	25	21	31	67	80	1401	40	70	79	10	
		52	87	30	10	10	09	00	1230	37	38	13	30	42	19	32	27	21	34	67	78	05	46	72	77	10	
		57	85	30	10	10	07	1282	13	42	33	10	41	50	22	26	21	22	37	71	78	02	40	74	75	15	
		Faht....	84.5	84.5	84.6	84.7	84.8	84.3	84.3	84.5	84.8	84.9	85.0	85.2	85.4	85.5	85.4	85.2	85.2	85.4	85.5	85.4	85.4	85.4	85.6	85.6	
		Attached Thermometer...	84.5	84.5	84.6	84.7	84.8	84.3	84.3	84.5	84.8	84.9	85.0	85.2	85.4	85.5	85.4	85.2	85.2	85.4	85.5	85.4	85.4	85.4	85.6	85.6	
VERTICAL FORCE.		m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	3	4852	4747	4928	4565	4897	5087	5311	5720	6153	6309	6256	6324	6161	5804	5168	5165	5189	5140	5211	5095	5072	5017	5026	5043		
	8	52	47	28	65	4982	98	5438	40	53	6275	56	24	61	5740	68	65	89	40	50	95	51	30	26	43		
	13	52	47	28	65	5034	84	5342	5813	83	75	56	24	27	5679	68	65	89	40	07	95	34	63	26	43		
	18	52	47	28	65	34	74	42	5930	83	28	05	24	27	5549	68	17	89	57	5175	5130	4949	87	11	43		
	23	92	4913	4882	4717	4922	86	42	5845	80	28	05	24	27	18	68	17	5210	*	80	30	43	83	11	5187		
	28	92	13	82	17	97	92	5414	5935	80	64	6306	24	6085	5422	68	17	5161	57	71	64	4850	83	4984	87		
	33	92	13	82	17	5076	85	5534	67	80	34	06	24	85	5384	68	5207	61	57	77	66	01	83	84	65		
	38	4768	13	82	4827	5100	70	5448	6000	6206	34	06	47	5998	84	5207	18	72	61	77	50	4773	60	91	65		
	43	68	57	4650	27	5095	61	64	00	06	6185	64	6187	35	84	07	18	72	61	48	28	20	60	91	47		
	48	68	57	50	27	95	5104	5600	94	06	85	64	61	35	28	07	24	52	61	5088	36	79	35	91	47		
	53	68	57	50	27	5183	39	28	94	06	6222	64	61	03	28	07	24	34	36	88	98	4852	35	37	65		
	58	68	57	50	27	5244	95	94	06	22	24	61	03	5238	07	07	24	34	36	99	98	4906	35	37	65		
	Faht....	84.5	84.5	84.5	84.5	84.5	84.4	84.4	84.5	84.7	84.9	85.0	85.2	85.4	85.4	85.3	85.2	85.2	85.2	85.2	85.1	85					

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. 24TH SEPTEMBER 1851, GOTTINGEN MEAN TIME.

Göttingen Mean Time.		WEDNESDAY, 24TH SEPTEMBER, 1851.														THURSDAY, 25TH SEPTEMBER, 1851.										
		p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m.	0	1640	1643	1641	1650	1668	1676	1654	1624	1599	1578	1582	1593	1612	1630	1634	1636	1635	1637	1638	1639	1642	1643	1647	1649
	s.	0	40	43	42	52	68	77	50	21	97	73	83	96	12	30	35	36	35	37	39	39	42	44	47	50
	5	0	40	43	42	54	70	74	50	20	96	72	87	98	13	30	35	36	35	37	39	39	42	44	48	49
	10	0	40	43	43	54	70	74	48	19	94	72	88	99	16	30	36	35	35	38	39	39	42	44	49	48
	15	0	40	43	43	57	70	72	41	16	92	72	90	1600	17	31	36	35	35	38	39	40	42	42	49	47
	20	0	40	42	44	58	72	73	40	12	89	72	90	01	18	*	36	35	35	38	39	40	41	41	48	48
	25	0	42	42	44	58	72	71	38	10	88	72	90	02	20	34	36	34	35	38	39	40	41	41	48	49
	30	0	42	42	44	59	73	69	38	09	85	72	91	05	23	34	36	34	37	37	39	40	40	40	49	50
	35	0	42	42	44	61	73	63	32	08	82	75	92	08	24	36	36	34	37	37	39	41	41	42	49	49
	40	0	42	42	46	61	77	61	31	04	82	77	92	09	26	36	36	35	37	37	40	42	42	43	50	49
	45	0	42	41	48	64	78	60	30	02	80	79	92	10	27	34	35	35	37	38	39	42	42	44	49	50
	50	0	42	41	48	66	77	59	28	00	78	80	92	10	28	33	35	35	37	38	38	42	42	45	49	50
	55	0																								
HORIZONTAL FORCE.	2	0	1377	1388	1387	1384	1403	1347	1261	1179	1140	1170	1237	1290	1330	1341	1349	1347	1362	1372	1379	1374	1387	1372	1382	1384
	7	0	77	88	80	87	02	40	48	70	42	78	40	92	32	41	49	47	62	72	79	76	87	72	86	78
	12	0	80	88	76	88	00	30	41	68	42	87	49	94	32	41	48	49	67	74	79	78	87	74	88	70
	17	0	80	88	72	92	00	22	40	61	47	91	51	1300	32	40	48	50	69	76	78	79	88	76	90	74
	22	0	80	90	70	95	1393	10	22	57	48	98	53	02	35	40	48	50	70	77	77	80	90	72	88	79
	27	0	82	90	70	98	89	01	09	50	50	99	60	07	39	*	49	50	70	78	77	89	89	70	82	76
	32	0	82	90	70	1400	82	1298	08	52	53	1200	64	10	40	50	49	47	71	77	77	90	85	75	80	78
	37	0	82	90	73	00	78	90	08	58	56	10	69	11	40	51	49	41	73	77	78	89	86	70	84	70
	42	0	82	92	73	06	71	82	08	48	58	13	72	13	42	50	49	48	71	77	79	87	84	80	87	70
	47	0	85	92	76	10	68	81	1198	49	60	18	77	17	42	50	47	49	70	77	79	85	80	83	88	68
	52	0	85	90	79	08	60	78	90	48	65	22	81	21	44	50	46	53	72	77	74	85	73	90	89	67
	57	0	87	87	82	05	51	68	81	45	69	28	87	24	47	50	42	60	72	79	72	86	71	92	93	62
	Faht....			86.5	86.6	86.5	86.5	86.5	86.3	86.3	86.6	86.7	86.9	86.9	86.8	86.9	87.0	87.0	87.0	87.0	87.0	87.0	86.9	86.9	86.8	86.7
Attached Thermometer.			86.5	86.6	86.5	86.5	86.5	86.3	86.3	86.6	86.7	86.9	86.9	86.8	86.9	87.0	87.0	87.0	87.0	87.0	87.0	86.9	86.9	86.8	86.7	
VERTICAL FORCE.	m.	3	5650	5692	5578	5592	5683	6351	7558	8523	8673	8387	7889	7016	6233	6025	5568	6138	6081	5992	5943	5872	5793	5641	5671	5642
	s.	0	50	92	78	92	83	6495	7712	8706	43	31	10	16	33	25	68	38	82	92	43	72	5817	41	71	42
	8	0	50	92	78	92	83	6618	65	44	43	8292	7752	6880	6196	25	68	38	82	89	40	72	01	41	71	42
	13	0	50	92	78	92	5729	6720	7825	98	04	92	7688	6761	96	25	68	38	82	87	40	96	5792	41	71	42
	18	0	77	92	49	92	88	6829	7944	8808	8583	14	26	6675	09	25	6046	38	82	84	40	96	93	19	71	42
	23	0	77	92	49	5656	5868	7061	8050	8788	83	8181	26	28	6062	*	46	38	63	84	18	5913	93	19	07	42
	28	0	5702	92	49	56	5908	7142	8117	50	07	81	7550	6552	62	50	46	38	63	79	18	13	74	19	07	42
	33	0	02	92	49	56	65	7209	70	15	07	09	50	52	62	50	80	21	53	72	18	13	13	19	07	66
	38	0	02	07	15	56	6027	47	8234	8696	8474	8071	7369	6466	62	50	80	21	53	72	5885	13	13	41	73	66
	43	0	02	07	15	56	6123	7314	8311	73	74	24	7285	66	5986	50	80	21	53	74	55	13	13	41	73	66
	48	0	02	07	15	56	6203	7440	78	73	34	7975	7183	6294	86	50	80	21	53	74	69	5872	5641	71	73	66
	53	0	02	07	15	56	54	75	8463	73	34	50	7087	94	86	50	80	21	26	74	69	33	41	71	73	66
	58	0																								
Faht..			86.5	86.5	86.5	86.5	86.5	86.4	86.5	86.7	86.7	87.0	87.0	86.7	86.9	87.0	87.0	86.9	86.8	86.8	86.7	86.6	86.5	86.4	86.3	
Attached Thermometer....			86.5	86.5	86.5	86.5	86.5	86.4	86.5	86.7	86.7	87.0	87.0	86.7	86.9	87.0	87.0	86.9	86.8	86.8	86.7	86.6	86.5	86.4	86.3	
INDUCTION INCLINO-METER.	m.	0	1630	1630	1630	1635	1650	1652	1636																	

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. 22D OCTOBER 1851, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,			COMMENCING AT 10 P. M. 22D OCTOBER 1851, GOTTINGEN MEAN TIME.																														
Göttingen Mean Time.			WEDNESDAY, 22D OCTOBER, 1851.																					THURSDAY, 23D OCTOBER, 1851.									
			p. m.																					Noon									
			10	11	12	13	14	15	16	17	18	19	20	21	22	23	1	2	3	4	5	6	7	8	9								
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.							
	0	0	1629	1628	1620	1612	1620	1630	1631	1627	1613	1610	1620	1625	1642	1650	1632	1618	1618	1623	1618	1622	1628	1631	1628	1626							
	5	0	29	28	20	12	23	30	31	25	11	10	20	26	43	50	30	18	18	22	18	22	28	30	28	25							
	10	0	28	26	20	13	24	30	30	24	11	10	20	28	43	51	28	18	18	20	19	22	29	30	27	24							
	15	0	29	25	20	15	24	30	30	22	10	12	20	30	43	51	25	20	18	20	19	22	29	30	28	24							
	20	0	29	23	19	17	27	31	30	20	10	12	22	30	43	51	23	22	18	18	20	23	30	30	28	22							
	25	0	29	22	19	17	28	31	30	20	10	13	22	33	46	47	21	22	17	17	21	23	30	30	29	24							
	30	0	28	21	19	18	29	31	29	19	10	15	24	33	50	44	18	22	17	17	21	22	28	30	28	24							
	35	0	28	20	19	19	29	31	29	19	10	15	24	32	50	42	17	20	14	16	20	24	27	30	28	25							
	40	0	28	20	17	20	30	31	27	18	10	16	25	34	52	40	16	19	13	16	21	24	29	29	28	24							
	45	0	28	20	16	20	30	31	26	19	10	18	25	37	51	38	17	19	13	17	21	29	30	29	27	22							
	50	0	28	20	15	20	30	31	26	17	10	20	25	39	50	37	17	19	12	18	22	28	30	30	25	21							
	55	0	28	20	14	20	30	31	26	15	10	20	25	40	50	33	17	19	14	17	22	28	30	30	25	21							
HORIZONTAL FORCE.	2	0	1290	1281	1292	1320	1327	1252	1179	1122	1080	1055	1115	1178	1250	1327	1320	1326	1243	1419	1377	1359	1381	1400	1364	1374							
	7	0	90	80	97	20	24	43	69	27	74	58	25	76	50	35	26	28	49	09	76	59	82	02	60	76							
	12	0	88	77	1300	22	20	39	69	17	67	60	30	74	50	39	34	28	52	00	68	58	86	06	60	78							
	17	0	90	74	07	27	20	32	60	09	62	67	38	80	56	42	44	00	80	1388	63	57	87	1396	64	74							
	22	0	90	72	12	30	1300	30	52	1099	55	70	45	86	63	47	39	1282	94	78	60	77	89	88	70	70							
	27	0	90	70	12	36	1299	22	42	92	55	80	50	97	80	40	27	82	1300	78	59	76	99	78	70	70							
	32	0	89	73	10	22	91	19	39	90	57	88	58	1206	95	31	24	80	1290	78	59	79	1400	72	70	74							
	37	0	88	75	11	25	89	18	21	89	57	82	60	08	1302	28	20	65	79	76	48	83	04	70	72	70							
	42	0	85	78	16	30	83	09	27	91	55	94	63	17	10	21	26	50	60	79	48	83	08	70	74	72							
	47	0	83	81	18	30	78	03	18	93	55	1102	65	26	13	26	24	50	63	80	47	83	06	70	74	60							
	52	0	83	85	19	30	68	1193	12	90	58	02	72	38	15	30	29	48	61	81	49	84	04	70	72	52							
	57	0	82	87	20	28	59	83	20	90	56	1110	75	42	27	21	30	44	59	80	47	79	02	70	70	44							
	Faht.....			83.7	83.7	83.9	84.0	84.0	83.7	83.8	83.8	84.0	84.2	84.3	84.7	84.8	84.9	84.7	84.5	84.6	84.6	84.6	84.6	84.5	84.4	84.6							
Attached Thermometer.....			83.7	83.7	83.9	84.0	84.0	83.7	83.8	83.8	84.0	84.2	84.3	84.7	84.8	84.9	84.7	84.5	84.6	84.6	84.6	84.6	84.5	84.4	84.6								
VERTICAL FORCE.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.							
	3	20	4629	4621	4567	4465	4776	4960	5330	5865	6095	6177	6056	5954	5821	5812	5315	5098	4967	5347	5047	4783	4863	4899	4591	4686							
	8	20	29	21	67	65	50	84	86	5939	95	77	56	54	21	12	15	98	67	5790	47	88	63	99	91	86							
	13	20	29	21	67	4520	4827	84	86	39	6125	18	71	28	5794	5686	74	98	67	5655	47	88	63	99	91	25							
	18	20	29	4537	67	20	27	5028	95	82	13	18	71	28	94	03	74	4912	4826	5391	4973	4894	24	4719	4611	69							
	23	20	29	37	4615	69	66	52	5443	6021	13	6088	33	28	5810	03	74	4736	4708	5246	00	94	24	19	11	84							
	28	20	29	4456	15	69	4900	52	95	47	34	44	59	5878	10	03	5283	36	08	5120	4858	94	84	4642	11	55							
	33	20	26	56	45	4666	00	84	5528	98	34	44	76	78	48	5419	83	36	44	5095	58	94	84	42	43	42							
	38	20	26	56	45	66	07	84	5650	6113	23	6114	26	78	48	19	83	4624	4693	94	26	94	84	42	43	42							
	43	20	26	56	45	4749	07	5131	19	28	07	37	26	51	48	19	5171	4494	4573	71	26	72	4784	4598	43	42							
	48	20	26	64	4576	49	07	82	34	28	07	6099	5981	51	48	19	71	94	73	53	26	72	84	98	4597	4557							
	53	20	26	64	16	49	35	5228	5782	28	07	6106	81	15	48	19	71	94	73	53	4715	47	84	91	97	45							
	58	20	21	64	16	49	53	85	82	6087	07	06	70	15	48	19	71	94	4804	32	15	36	84	91</									

ABSTRACT OF TERM DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 24TH DECEMBER 1851, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM DAY OBSERVATIONS.			COMMENCING AT 10 P. M. OF 24TH DECEMBER 1851, GOTTINGEN MEAN TIME.																							
Göttingen Mean Time.			WEDNESDAY, 24TH DECEMBER, 1851.														THURSDAY, 25TH DECEMBER, 1851.									
			p.m. 10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	
		s.	1650	1648	1643	1644	1653	1657	1670	1650	1629	1640	1651	1661	1660	1670	1672	1665	1670	1672	1663	1658	1653	1652	1651	1649
		0	50	48	43	44	51	59	70	48	29	40	51	61	61	70	72	66	70	72	62	58	53	52	51	49
		5	50	48	43	44	52	60	70	42	28	43	53	63	60	71	72	63	70	72	62	58	51	52	51	49
		10	49	48	43	44	52	61	71	40	28	45	55	64	60	72	72	62	70	72	65	54	52	52	51	48
		15	49	48	44	47	52	61	71	39	29	45	56	64	61	73	72	64	70	72	63	55	52	52	50	48
		20	49	48	45	49	52	63	71	38	29	47	58	64	60	74	70	64	70	72	60	53	52	53	50	47
		25	48	48	46	50	52	66	70	37	30	47	60	63	60	72	70	64	70	72	61	52	52	53	50	47
		30	48	48	48	52	50	66	68	34	32	47	60	63	60	70	70	64	70	71	60	53	52	53	50	48
		35	48	46	47	52	51	68	67	32	32	49	60	62	61	70	70	63	70	70	60	53	52	53	50	49
	40	48	46	47	53	53	69	63	32	35	49	60	63	60	70	70	66	72	70	59	53	52	53	50	49	
	45	48	45	47	52	54	69	60	32	36	50	60	62	64	70	68	67	72	68	58	54	52	52	50	50	
	50	48	44	45	54	56	69	57	30	39	50	61	62	68	70	68	67	72	64	58	53	52	52	50	50	
	55																									
	HORIZONTAL FORCE.	2	1063	1088	1080	1098	1102	1059	1019	978	918	908	947	1032	1100	1154	1160	1142	1142	1128	1138	1118	1118	1128	1120	1105
7		66	88	80	98	1096	61	09	970	919	908	953	42	12	56	57	44	48	22	40	02	19	26	20	05	
12		69	87	81	97	90	69	00	963	912	908	962	52	16	56	50	48	52	21	35	03	20	24	20	02	
17		71	85	82	96	82	69	992	956	922	910	974	58	18	64	50	50	52	21	38	02	24	22	20	01	
22		76	84	84	93	74	69	989	947	922	915	984	64	20	66	47	50	52	20	38	05	27	21	22	03	
27		80	82	85	90	60	71	987	942	919	920	993	67	24	69	42	50	50	18	30	12	29	20	24	03	
32		81	82	88	88	56	70	986	940	913	925	999	77	26	70	40	58	50	18	29	18	29	20	20	03	
37		83	81	91	87	52	62	980	932	912	932	1000	80	34	70	40	60	44	18	30	22	29	20	17	03	
42		87	81	90	89	50	53	976	922	908	930	10	90	38	74	30	60	46	21	32	22	29	20	15	04	
47		87	81	88	92	53	39	972	928	909	932	12	92	40	76	30	62	42	28	39	18	30	20	11	04	
52	86	80	88	96	59	31	972	930	907	936	15	94	42	70	36	60	40	30	38	19	30	20	09	06		
57	86	80	92	99	58	29	982	919	910	945	22	95	44	70	36	60	28	34	38	18	30	20	07	06		
Faht.....			78.0	78.0	78.0	77.9	77.9	77.3	77.3	77.4	77.7	77.8	78.0	78.2	78.2	78.2	78.1	78.1	78.4	78.8	78.8	78.8	78.8	78.9	78.9	78.9
Attached Thermometer.....																										
VERTICAL FORCE.	m.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	
	s.	4284	4284	4250	4225	4225	4097	4235	4473	4688	4761	4915	4905	4705	4580	4475	4406	4402	4395	4361	4277	4320	4329	4346	4307	
	3	84	84	50	25	4168	4107	53	83	4700	28	37	4894	05	80	75	06	02	48	86	61	43	29	46	07	
	8	84	84	50	25	68	16	83	4506	30	25	30	94	4670	80	75	06	4390	48	69	61	43	29	46	07	
	13	84	81	50	25	68	16	95	17	27	65	26	76	70	80	75	06	90	48	64	88	43	29	46	07	
	18	84	81	50	25	49	16	4321	38	32	68	39	67	70	80	75	06	90	40	64	88	43	29	46	07	
	23	84	31	50	25	49	16	57	47	42	80	30	67	46	80	75	06	90	40	64	94	43	29	46	07	
	28	84	81	50	41	49	05	88	63	45	79	45	67	46	51	33	06	90	33	30	94	43	29	46	07	
	33	84	81	50	41	18	05	4405	75	56	80	32	67	46	51	33	06	90	33	30	4320	57	29	46	07	
	38	84	81	50	41	18	05	41	58	55	4800	34	4790	4595	26	33	06	90	50	30	18	57	29	46	07	
43	84	50	50	41	4095	42	61	4621	45	50	34	90	95	26	15	06	90	50	30	07	57	29	46	07		
48	84	50	50	41	4136	76	61	30	40	67	22	90	95	26	15	06	81	60	30	07	57	29	46	07		
53	84	50	50	41	36	4200	60	56	40	79	15	90	95	26	15	66	46	60	30	20	57	29	46	07		
58																										
Faht.....			78.0	77.6	77.5	77.2	77.2	77.2	77.4	77.6	77.9	78.1	78.3	78.5	78.5	78.5	78.4	78.4	78.4	78.4	78.3	78.3	78.3	78.3	78.2	78.1
Attached Thermometer.....																										
INDUCTION INCLINO-METER.	m.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.											

MADRAS, 1852.

MAGNETICAL OBSERVATIONS.

$$\alpha \left(1 + \frac{H}{F}\right) = 4.03 \times 1.000238 = 4.03096 \quad \alpha + 7.6 = \rho = 0.42 \ 37.2 + 0.7.6 = 0.49 \ 43.2 \text{ East of North.} \quad \text{Zero 1497.}$$

DECLINATION MAGNETOMETER.

Gottingen Mean Time.		Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.		Absolute Declination to the East of North.
Madras Mean Time.		h.m. h.m.																									
		4:41 5:41 6:41 7:41 8:41 9:41 10:41 11:41 12:41 13:41 14:41 15:41 16:41 17:41 18:41 19:41 20:41 21:41 22:41 23:41 0:41 1:41 2:41 3:41																									
JANUARY 1852. Declination.																											
	1	1650	1646	1648	1653	1654	1652	1651	1650	1649	1646	1643	1642	1640	1641	1641	1644	1660	1650	1644	1645	1656	1658	1658	1658	1649	0 59 56
	2	655	651	656	657	655	653	652	651	650	649	648	647	644	644	640	632	646	650	654	658	663	658	656	654	651	1 00 04
	3	659	652	651	653	652	652	653	653	652																	
	4										656	660	651	640	642	632	621	645	660	664	662	658	654	654	654	651	00 04
	5	678	659	663	660	653	655	658	660	662	661	660	659	657	650	640	639	641	640	630	630	628	632	640	650	650	00 00
	6	660	652	651	657	659	655	652	656	659	656	653	650	645	645	638	633	648	659	670	670	658	652	640	642	652	00 00
	7	654	659	658	659	656	654	653	653	652	652	651	650	648	642	640	636	653	662	660	655	646	646	650	656	652	00 08
	8	652	651	651	653	652	651	651	655	659	657	655	653	650	646	635	630	630	641	652	660	673	658	647	646	650	00 00
	9	652	658	650	653	653	657	662	661	660	660	659	656	652	652	648	652	669	671	670	678	660	650	649	660	658	00 32
	10	663	659	661	661	658	658	659	661	662																	
	11										660	658	656	652	648	642	650	664	678	680	660	658	660	650	650	659	00 36
	12	662	662	661	662	659	659	659	660	660	661	661	660	657	652	647	640	645	655	653	651	659	679	685	675	659	00 36
	13	670	665	660	662	660	650	660	661	662	661	660	659	656	652	650	647	651	667	678	687	680	669	652	646	661	00 44
	14	657	655	654	659	660	660	660	659	658	654	650	651	650	646	648	648	665	678	680	667	652	659	647	645	657	00 28
	15	652	651	654	659	660	659	658	658	658	654	650	650	648	642	640	638	653	676	679	659	653	647	647	653	654	00 16
	16	659	655	657	658	656	655	654	652	650	648	646	644	641	635	632	639	660	668	672	677	655	640	630	637	651	00 04
	17	646	648	650	656	658	654	650	654	657																	
	18										653	648	645	640	640	638	642	664	673	668	656	660	660	636	642	652	00 08
	19	650	648	652	654	653	651	650	649	647	641	635	624	612	610	604	602	601	648	662	698	720	702	670	668	648	0 59 52
	20	670	670	674	674	670	674	678	679	680	665	650	652	653	652	639	639	658	664	673	684	670	666	673	674	666	1 01 04
	21	674	672	674	670	662	662	662	662	661	660	658	650	640	631	628	623	639	663	670	671	679	674	672	675	660	00 40
	22	670	660	666	682	694	689	684	676	668	664	660	658	655	647	637	630	657	680	700	704	694	690	694	690	673	01 33
	23	680	670	670	667	660	663	667	672	676	673	670	667	662	655	650	640	648	667	668	666	660	658	664	670	664	00 56
	24	666	657	660	663	663	662	662	664	665																	
	25										666	667	670	671	675	660	650	655	652	658	656	652	657	662	670	662	00 48
	26	670	670	667	673	676	670	664	662	660	659	657	657	655	655	652	650	660	672	676	680	670	660	660	675	665	01 00
	27	670	663	664	668	669	664	660	661	661	660	658	658	656	657	658	659	664	671	660	660	650	635	637	648	659	00 36
	28	658	659	660	662	660	658	657	659	660	659	657	656	654	650	651	652	671	684	684	660	644	642	640	650	658	00 32
29	654	659	659	661	659	658	657	658	658	658	657	657	655	650	648	650	667	677	674	668	653	645	646	654	658	00 32	
30	660	661	659	661	660	657	654	658	662	661	659	658	655	650	640	634	640	650	650	652	650	662	648	646	654	658	00 16
31																											
Means.....		1661	658	659	661	660	659	659	659	660	657	655	653	650	647	641	639	652	664	666	666	662	658	654	657	1657	
Declination.....		60 44	60 32	60 36	60 44	60 40	60 36	60 36	60 36	60 40	60 28	60 20	60 12	60 00	59 48	59 24	59 16	60 08	60 56	61 04	61 04	60 48	60 32	60 16	60 28		1 00 28
Mean Hourly Variations from General Monthly Mean.		16	4	8	16	12	8	8	8	12	00	-8	-16	-28	-40	-64	-72	-20	28	36	36	20	4	-12	00		
FEBRUARY 1852. Declination.																											
	January 31	1652	1650	1659	1660	1662	1663	1665	1672	1677																	
	1										1669	1660	1658	1656	1653	1651	1652	1666	1659	1660	1654	1640	1640	1648	1650	1657	0 00 28
	2	658	662	658	660	662	659	657	655	652	653	654	653	653	650	652	660	667	674	662	638	640	649	644	650	655	00 20
	3	662	661	658	657	657	657	658	658	656	655	654	652	650	648	656	657	660	673	672	653	630	640	648	655	655	00 20
	4	662	658	653	653	653	653	654	654	652	651	650	648	647	647	644	645	659	670	677	663	65					

$$a \cdot \left(1 + \frac{H}{F}\right) = 4.03 \times 1.000238 = 4.03096 \quad a + 7.6 = \rho = 0.42.37.2 + 0.7.6 = 0.49.43.2 \text{ East of North.} \quad \text{Zero 1497.}$$

DECLINATION MAGNETOMETER.

Gottingen Mean Time.		Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.	Declination to the East of North.	
Madras Mean Time.		P. M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.			
		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	6.41	1.41	2.41	3.41		
MARCH 1852.					-1.9	-0.4		0.1		0.6		0.0															
	1	1644	1643	1641	1637	1636	1633	1630	1633	1635	1633	1630	1631	1632	1630	1640	1642	1648	1642	1634	1630	1628	1635	1640	1633	1636	0 59 04
	2	634	639	637	634	635	635	636	636	636	639	640	640	640	647	650	656	670	677	668	646	639	640	645	648	644	59 36
	3	643	637	634	632	633	632	632	635	638	638	636	635	633	635	642	660	677	680	661	636	620	629	632	639	640	59 20
	4	640	637	634	635	639	637	636	638	639	641	641	641	640	640	642	650	663	654	634	613	610	613	622	630	636	59 04
	5	639	638	635	635	638	640	642	645	647	649	650	645	640	639	645	650	676	678	659	631	628	626	630	638	643	59 32
	6	640	641	639	640	644	645	646	648	650																	
	7																										
	8	650	650	654	651	652	646	640	640	640	637	633	630	627	624	630	643	660	656	658	646	630	630	624	630	641	59 24
	9	632	628	626	627	632	635	639	641	642	642	642	637	632	632	636	640	646	640	622	612	608	614	624	628	632	58 47
	10	632	640	635	635	639	638	638	639	640	639	637	636	634	642	642	660	664	660	655	648	633	635	647	648	642	59 28
	11	643	637	632	630	632	631	631	631	630	631	632	630	627	626	630	642	658	662	652	648	643	648	652	652	639	59 16
	12	662	641	636	639	646	647	648	643	638	636	633	632	630	630	640	651	662	663	660	640	633	631	628	646	642	59 28
	13	632	627	630	633	640	643	647	644	640																	
	14																										
	15	645	637	634	633	636	637	639	635	630	628	625	627	628	629	632	650	670	678	658	635	632	641	650	657	640	59 20
	16	650	634	630	631	635	634	634	637	640	637	633	633	633	632	640	645	660	665	650	640	642	650	651	647	641	59 24
	17	642	637	644	645	650	647	645	642	638	633	628	628	628	617	642	655	671	676	668	640	631	629	637	644	642	59 28
	18	640	642	649	640	642	640	638	637	636	635	633	632	630	630	637	646	650	646	632	620	618	622	630	630	636	59 04
	19	633	630	638	637	640	639	638	639	640	640	638	636	634	630	638	650	656	658	642	635	629	635	640	638	639	59 16
	20	632	637	648	646	647	649	651	651	650																	
	21																										
	22	646	642	642	640	641	642	644	645	645	647	648	644	640	634	637	648	652	658	660	653	639	632	639	649	644	59 36
	23	652	651	646	641	640	639	639	641	643	643	642	640	638	640	638	650	658	660	659	642	639	630	629	638	643	59 32
	24	640	633	630	629	631	630	630	632	633	636	638	634	630	630	640	649	653	659	644	635	637	641	642	638	637	59 08
	25	632	628	628	626	628	629	631	633	635	637	637	638	638	638	640	647	649	646	634	620	610	613	622	628	632	58 47
	26	630	628	622	619	619	625	632	635	637	663	688	674	660	670	660	670	668	654	645	633	635	640	651	658	646	59 44
	27	657	655	652	646	643	649	656	653	650																	
	28																										
	29	655	642	644	645	649	649	649	650	650	650	648	648	648	650	663	656	660	658	643	633	632	624	628	628	646	1 00 16
	30	630	638	642	644	649	653	658	657	656	655	652	651	650	648	657	671	678	680	670	652	638	630	632	640	651	0 59 44
	31	642	642	641	638	639	642	645	647	648	654	658	655	652	648	650	667	660	658	638	630	628	629	640	641	645	1 00 04
Means.....		1641	638	638	637	639	639	641	641	641	642	641	639	637	636	643	653	662	662	651	638	632	632	637	641	1642	
Declination.....		59 24	59 12	59 12	59 08	59 16	59 16	59 24	59 24	59 24	59 28	59 24	59 16	59 08	59 04	59 32	60 12	60 48	60 48	60 04	59 12	58 47	58 47	59 08	59 24	.....	0 59 28
Mean Hourly Variations from General Monthly Mean.		-4	-16	-16	-20	-12	-12	-4	-4	-4	00	-4	-12	-20	-24	4	44	80	80	36	-16	-41	-41	-20	-4		
APRIL 1852.				-1.1	-0.7	-0.6	1.1	-0.1																			
	1	1648	1656	1658	1652	1649	1649	1650	1654	1660	1658	1654	1652	1650	1649	1660	1662	1663	1652	1634	1620	1610	1620	1623	1630	1646	0 59 44
	2	646	644	641	641	643	647	653	656	661	665	667	664	662	659	662	665	663	658	640	628	620	621	628	630	648	59 52
	3	634	636	638	637	639	642	646	647	650																	
	4																										
	5	648	641	645	647	651	647	644	647	652	653	652	653	655	656	672	688	690	675	646	625	615	629	638	648	649	59 56
	6	638	640	641	642	645	644	644	645	648	650	649	648	648	648	668	680	678	666	640	620	610	612	628	646	645	59 40
	7	654	645	642	640	641	639	639																			

$$\alpha \left(1 + \frac{H}{F}\right) = 4.03 \times 1.000238 = 4.3096$$

$$\alpha + 7.6 = \rho = 0.4237.2 + 0.7.6 = 0.49.43.2 \text{ East of North. Zero 1497.}$$

DECLINATION MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Absolute Declination to the East of North.	
Madras Mean Time.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.			
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41			
MAY 1852.				-1.6		0.6		-0.4		0.4		-0.4															
	1	1644	1648	1636	1632	1631	1635	1638	1638	1638	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1635	0 58 59
	2	—	—	—	—	—	—	—	—	—	1643	1648	1646	1644	1640	1658	1660	1650	1632	1620	1605	1600	1609	1618	1625	1635	0 58 59
	3	640	646	639	636	636	639	640	644	648	649	650	649	648	652	680	684	658	640	630	613	607	610	622	634	641	59 24
	4	647	644	636	631	630	636	640	640	640	642	644	643	642	649	668	674	657	628	610	598	595	607	617	627	635	58 59
	5	635	632	626	627	632	634	634	640	646	647	648	645	642	655	674	665	642	618	608	604	610	627	642	660	637	59 08
	6	664	651	639	633	631	635	638	639	640	641	642	642	642	643	660	660	658	637	630	618	602	620	642	656	640	59 20
	7	662	646	638	631	627	628	628	632	636	642	648	648	648	650	660	652	640	612	600	600	602	618	638	640	634	58 55
	8	660	661	640	638	640	641	641	643	646	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	9	—	—	—	—	—	—	—	—	—	643	640	641	642	646	660	672	660	636	618	610	616	631	639	648	642	59 28
	10	641	641	640	637	637	641	643	645	648	648	648	648	649	648	660	668	666	652	638	625	632	633	628	637	644	59 36
	11	644	639	638	636	638	640	640	644	648	648	648	648	649	650	652	652	648	632	621	615	615	624	627	635	639	59 16
	12	639	643	642	639	640	641	640	641	642	643	644	646	648	659	670	667	654	639	625	608	610	623	637	641	641	59 24
	13	640	637	633	631	632	633	632	634	636	639	642	642	643	654	668	660	650	625	610	595	600	611	626	637	634	58 55
	14	648	647	634	634	638	638	636	637	638	639	640	641	642	654	670	670	650	628	616	600	598	602	600	604	633	58 51
	15	626	638	632	633	638	640	640	641	642	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	16	—	—	—	—	—	—	—	—	—	641	640	641	642	650	665	670	658	630	610	602	599	608	610	620	634	58 55
	17	630	631	628	627	630	635	638	640	642	645	648	649	650	662	678	677	662	642	630	617	613	622	627	632	640	59 20
	18	632	638	633	632	635	641	646	647	648	644	640	641	642	651	670	672	657	622	590	575	577	589	603	624	631	58 43
	19	633	638	626	627	632	637	640	641	642	651	660	661	662	670	686	670	660	645	628	614	620	626	652	650	645	59 40
	20	650	650	657	648	643	643	642	651	660	655	650	654	659	670	664	672	652	630	610	605	592	599	631	638	643	59 32
	21	642	652	650	643	640	643	644	644	644	647	650	650	650	660	680	682	672	648	632	612	602	616	634	643	645	59 40
	22	644	645	639	640	645	647	648	649	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	23	—	—	—	—	—	—	—	—	—	651	652	651	650	671	687	683	673	650	631	615	610	617	629	628	646	59 44
	24	640	647	644	640	639	642	644	645	647	648	648	649	650	653	680	691	687	667	649	632	625	624	622	624	647	59 48
	25	632	633	639	635	634	638	640	642	644	644	644	646	648	652	668	671	660	645	632	616	608	609	621	634	639	59 16
	26	649	643	637	635	637	640	642	644	646	648	650	650	650	659	678	682	672	648	615	607	620	632	639	650	645	59 40
	27	657	650	639	635	634	635	635	647	658	658	658	659	661	670	680	686	670	645	627	607	593	608	620	635	644	59 36
	28	648	650	651	644	640	644	646	648	650	651	651	653	655	670	683	685	670	644	616	599	598	610	622	638	644	59 36
	29	650	650	639	634	632	637	640	642	645	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	647	648	649	650	662	680	670	642	622	607	593	587	597	607	615	635	58 59
	31	628	641	634	628	625	632	637	642	648	648	648	649	650	664	684	687	688	659	640	629	622	638	633	634	645	59 40
Means.....		1643	644	638	635	635	638	640	642	645	646	647	648	648	656	672	672	660	638	621	608	606	616	626	635	1640	
Declination.....		59 32	59 36	59 12	58 59	58 59	59 12	59 20	59 28	59 40	59 44	59 48	59 52	59 52	60 24	61 29	61 29	60 40	59 12	58 03	57 11	57 03	57 43	58 23	58 59	.....	0 59 20
Mean Hourly Variations from General Monthly Mean.		12	16	-8	-21	-21	-8	00	8	20	24	28	32	32	64	129	129	80	-8	-77	-129	-137	-97	-57	-21		
JUNE 1852.				-2.4		0.1		0.2		0.4		-0.99															
	1	1639	1638	1637	1635	1638	1639	1639	1640	1640	1641	1642	1644	1648	1658	1670	1677	1673	1656	1633	1620	1610	1612	1618	1624	1640	0 59 20
	2	628	633	635	631	631	633	635	634	632	640	648	646	646													

$$a \left(1 + \frac{H}{F}\right) = 4.03 \times 1000238 = 4.03096 \quad \alpha + 7.6'' = \rho = 0.42.37.2 + 0.7.6'' = 0.49.43.2 \text{ East of North.} \quad \text{Zero 1497.}$$

DECLINATION MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Absolute Declination to the East of North.	
Madras Mean Time.	P.M. h.m. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41			
JULY 1852.				-1.4	0.0	-0.2	0.9	-0.6																		Arc.	
	1	1652	1651	1647	1647	1650	1655	1660	1659	1658	1660	1660	1661	1663	1671	1693	1700	1682	1676	1654	1652	1642	1640	1658	1658	1660	1 00 40
	2	660	660	651	645	642	651	660	658	657	659	660	662	666	682	700	695	679	658	634	618	616	620	644	660	656	00 24
	3	678	673	662	657	655	658	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	00 28
	4	660	661	657	657	660	659	658	660	662	664	664	665	667	662	679	702	697	673	654	645	640	638	635	639	661	00 44
	5	657	661	667	660	655	653	651	655	660	664	667	670	675	688	690	680	670	647	641	630	630	638	648	658	659	00 36
	6	662	667	663	665	670	666	662	663	664	668	670	670	672	680	690	693	682	658	642	632	630	630	630	626	661	00 44
	7	638	653	652	651	653	656	658	659	660	666	670	670	672	679	690	690	678	662	650	637	632	639	647	642	658	00 32
	8	642	641	638	638	640	645	650	656	662	664	665	666	668	670	660	668	677	680	664	634	639	634	633	640	653	00 12
	9	630	630	632	646	663	667	670	670	670	670	670	670	670	670	670	670	670	670	670	670	670	670	670	670	670	00 12
	10	630	630	632	646	663	667	670	670	670	670	670	670	670	670	670	670	670	670	670	670	670	670	670	670	670	00 12
	11	642	641	640	645	652	656	660	666	672	677	680	680	682	690	698	701	688	662	658	648	647	657	660	662	665	00 48
	12	670	668	659	656	655	658	660	662	665	669	672	672	674	682	690	692	687	680	670	652	650	659	661	670	668	01 00
	13	662	660	658	657	658	660	662	666	670	672	672	674	677	684	692	690	675	660	650	640	640	636	650	660	664	00 56
	14	654	660	653	652	653	654	655	661	668	672	675	676	679	690	699	700	684	671	660	634	620	630	650	658	663	00 52
	15	660	661	658	654	653	656	659	663	668	670	670	670	671	680	697	699	680	655	637	630	629	640	647	659	661	00 44
	16	669	670	667	662	659	661	662	663	664	664	664	664	664	664	664	664	664	664	664	664	664	664	664	664	664	00 44
	17	655	669	662	659	659	659	658	660	662	667	670	669	670	682	696	690	670	651	619	608	602	608	612	624	653	01 00
	18	640	652	659	657	657	658	659	660	662	664	665	664	665	673	687	690	682	663	643	621	611	620	642	650	656	00 12
	19	653	662	652	651	652	653	653	656	660	661	661	661	662	670	696	703	709	692	677	644	622	616	618	623	659	00 24
	20	650	657	651	649	650	656	661	662	663	666	668	667	667	673	683	677	669	650	630	614	616	620	638	650	654	00 36
	21	666	669	660	658	659	660	660	662	665	668	670	670	672	679	695	697	680	658	632	618	620	619	634	640	659	00 16
	22	646	656	654	652	653	657	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	00 36
	23	670	664	661	659	659	660	660	660	660	662	662	662	665	676	692	698	681	673	668	640	634	638	640	660	661	00 44
	24	652	650	656	650	646	652	658	663	668	670	671	669	669	673	670	682	675	660	651	640	626	642	670	680	660	00 40
	25	672	662	670	667	667	664	660	662	665	668	670	669	670	678	678	673	660	642	647	630	620	632	660	670	661	00 40
	26	678	678	672	675	680	671	662	662	662	666	668	669	672	679	692	699	680	669	650	625	641	669	682	690	670	01 21
	27	681	680	672	669	668	664	660	662	665	667	668	668	670	679	699	702	680	655	640	651	656	669	672	681	670	01 21
	28	681	680	672	669	668	664	660	662	665	667	668	668	670	679	699	702	680	655	640	651	656	669	672	681	670	01 21
	29	681	680	672	669	668	664	660	662	665	667	668	668	670	679	699	702	680	655	640	651	656	669	672	681	670	01 21
	30	681	680	672	669	668	664	660	662	665	667	668	668	670	679	699	702	680	655	640	651	656	669	672	681	670	01 21
31	681	680	672	669	668	664	660	662	665	667	668	668	670	679	699	702	680	655	640	651	656	669	672	681	670	01 21	
Means.....	658	660	657	655	656	658	659	661	664	667	668	669	671	678	690	692	681	664	649	634	630	635	646	654	1661		
Declination.....	60.32	60.40	60.28	60.20	60.24	60.32	60.36	60.44	60.56	61.08	61.12	61.17	61.25	61.53	62.41	62.49	62.05	60.56	59.56	58.55	58.39	58.59	59.44	60.16	.....	1 00 44	
Mean Hourly Variations from General Monthly Mean.	-12	-4	-16	-24	-20	-12	-8	00	12	24	28	33	41	69	117	125	81	12	-48	-109	-125	-105	-60	-28			
AUGUST 1852.				-1.1	-0.99	-0.6	0.2	-0.2																		Arc.	
	1	1690	1680	1671	1664	1659	1657	1657	1658	1660	1664	1667	1668	1670	1684	1701	1704	1688	1660	1632	1623	1627	1637	1650	1662	1664	1

$$a. \left(1 + \frac{H}{F}\right) = 4.03 \times 1.000238 = 4.03096 \quad \text{for } \begin{cases} \text{Sept. } a + 7.6 = \rho = 0.42 \ 37.2 + 0.7.6 = 0.49.43.2 \\ \text{Oct. } a + 7.6 = \rho = 0.41 \ 8.2 + 0.7.6 = 0.48.14.2 \end{cases} \quad \text{East of North.} \quad \text{Zero} = 1497.$$

DECLINATION MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Absolute Declination to the East of North.	
Madras Mean Time.	P.M. 4.41	n.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41			
SEPTEMBER 1852.				0.1		-0.7		-0.2		0.4		0.0															Arc.
	1	1657	1651	1649	1646	1643	1647	1652	1663	1674	1672	1670	1671	1672	1680	1699	1693	1680	1668	1650	1640	1636	1628	1637	1653	1660	1 00 40
	2	666	660	653	656	658	657	658	658	658	660	662	662	662	674	702	709	689	675	656	636	630	622	637	656	661	00 44
	3	663	662	658	659	660	660	662	661	660	663	665	666	666	670	681	700	685	672	632	622	620	629	645	658	659	00 36
	4	679	670	670	664	658	653	650	650	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	660	670	670	670	680	690	690	680	662	642	631	630	642	659	670	662	00 48
	6	677	661	661	660	659	658	659	658	658	660	661	666	670	674	691	698	689	670	659	650	640	640	648	659	664	00 56
	7	668	660	658	661	663	665	668	666	664	666	668	668	668	672	700	708	683	666	632	614	618	622	638	660	661	00 44
	8	668	660	665	664	662	661	661	662	664	663	662	664	665	645	672	682	667	650	640	620	610	614	620	639	653	00 12
	9	640	630	626	623	619	624	630	633	637	639	640	639	638	642	657	665	648	640	620	616	620	630	640	660	636	0 59 04
	10	667	668	652	649	645	640	637	636	635	643	650	652	653	660	670	664	640	622	610	602	630	638	650	662	645	59 40
	11	670	640	642	637	631	630	630	632	635	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	12	—	—	—	—	—	—	—	—	—	643	650	653	655	658	671	665	650	629	610	600	611	620	640	652	640	59 20
	13	654	640	634	636	638	637	638	641	644	646	648	649	649	658	680	682	678	660	640	615	604	609	630	648	644	59 36
	14	654	643	640	639	638	638	639	639	640	641	642	644	645	650	680	688	675	657	635	610	590	600	620	636	641	59 24
	15	642	640	639	639	638	638	640	640	640	641	642	640	638	645	670	680	672	669	642	612	610	610	620	634	641	59 24
	16	640	632	630	634	638	638	639	638	638	638	638	635	632	634	652	654	648	658	658	623	612	615	622	636	637	59 08
	17	640	643	651	648	645	643	642	641	640	654	668	664	660	662	660	655	640	630	620	610	604	610	614	628	640	59 20
	18	632	632	638	638	637	637	638	638	638	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	19	—	—	—	—	—	—	—	—	—	638	638	639	639	635	655	660	659	649	634	629	630	622	640	648	639	59 16
	20	656	647	650	654	658	658	659	656	654	642	630	630	630	635	653	658	650	643	634	628	620	627	630	642	643	59 32
	21	635	631	630	635	640	638	638	639	640	640	640	636	632	640	651	662	651	648	649	630	629	631	638	640	639	59 16
	22	652	658	661	653	645	643	642	640	639	642	644	642	640	641	662	670	661	650	639	620	620	622	642	651	645	59 40
	23	650	648	645	643	641	641	643	642	642	648	654	652	650	652	672	670	657	642	636	620	618	618	624	630	643	59 32
	24	640	642	651	646	640	639	640	643	647	645	642	645	647	640	649	652	640	630	620	620	610	620	640	648	639	59 16
	25	650	641	642	640	638	639	642	641	640	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	26	—	—	—	—	—	—	—	—	—	640	640	639	638	640	661	672	660	642	632	615	609	630	646	650	641	59 24
	27	640	633	614	612	610	609	610	609	609	615	620	620	620	622	660	668	655	635	620	605	606	616	630	640	624	58 15
	28	633	622	621	621	620	619	620	618	617	624	630	627	624	626	642	643	627	617	611	610	610	612	624	631	623	58 11
	29	630	619	620	620	620	621	623	621	620	625	630	630	630	645	640	645	630	618	606	590	600	606	630	630	623	58 11
	30	630	626	632	631	630	631	633	634	635	635	635	633	630	639	650	652	652	635	618	600	600	618	620	630	630	630	58 39
Means.....	651	645	644	643	641	641	642	642	643	645	648	648	647	651	668	672	660	648	632	618	616	621	634	646	1644	0 59 36	
Declination.....	60 04	59 40	59 36	59 32	59 24	59 24	59 28	59 28	59 32	59 40	59 52	59 52	59 48	60 04	61 12	61 29	60 40	59 52	58 47	57 51	57 43	58 03	58 55	59 44	.....	0 59 36	
Mean Hourly Variations from General Month- ly Mean.	28	4	00	-4	-12	-12	-8	-8	-4	4	16	16	12	28	96	113	64	16	-49	-105	-113	-93	-41	8	.....	0 59 36	
OCTOBER 1852.				1.3		-0.4		0.99		0.1		-0.2															Arc.
	1	1633	1628	1635	1634	1631	1634	1638	1640	1640	1638	1636	1635	1634	1632	1640	1650	1648	1642	1634	1612	1602	1600	1618	1628	1632	0 57

$$\alpha + 7^{\circ} 6' = \rho = 0^{\circ} 41' 8'' + 0^{\circ} 7' 6'' = 0^{\circ} 48' 14'' \text{ East of North.} \quad \text{Zero} = 1497.$$

DECLINATION MAGNETOMETER.

[illegible]

* The numbers in these Columns are not observed; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the Corrections of interpolations.

$$k = a.Cot. v. = .0003139 \times Cot. 75^{\circ}15' = .00008264$$

$$3.3963 = \text{Correction for } 1^{\circ} \text{ Faht.}$$

Zero for Magr. 1497 at Ther. 88.8 Corrected Zero 1215.

do. for Ther. 80.5 or Standard 80.0.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
JANUARY 1852. Horizontal Force Magnetometer.				1.8 *		0.6 *		-0.9 *		-0.2 *		-0.2 *													1066	70	1136	1.000653	
	1	1054	1076	1118	1104	1087	1079	1070	1088	1107	1103	1100	1093	1087	1078	1069	1048	1021	1008	983	1005	1018	1042	1060	1082	1035	62	1097	0.975
	2	1117	1096	1086	1087	1084	1083	1081	1075	1070	1071	1072	1074	1076	1078	1058	1030	1002	956	912	888	894	936	991	1024	1072	55	1127	0.727
	3	1039	1040	1032	1039	1043	1059	1074	1061	1050	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1092	53	1145	0.578
	4	—	—	—	—	—	—	—	—	—	1070	1090	1116	1142	1159	1130	1088	1048	1012	990	1040	1062	1072	1104	1158	1061	66	1127	0.727
	5	1180	1197	1161	1139	1114	1117	1119	1124	1130	1124	1118	1111	1105	1100	1082	1072	1014	1010	1000	1000	1010	1032	1054	1084	1022	73	1095	0.991
	6	1088	1096	1149	1139	1125	1103	1080	1086	1094	1087	1080	1071	1062	1080	1060	1037	1002	977	968	970	990	1014	1042	1070	1032	55	1087	1.058
	7	1070	1074	1081	1087	1090	1087	1083	1075	1068	1070	1072	1061	1050	1042	1034	990	942	893	868	850	904	970	1010	1050	1084	28	1112	0.851
	8	1064	1067	1069	1071	1070	1075	1078	1072	1068	1061	1055	1057	1060	1077	1060	1040	1008	950	918	920	920	976	1010	1010	1083	23	1106	0.901
	9	1082	1070	1080	1092	1100	1135	1169	1143	1118	1118	1119	1118	1118	1112	1090	1062	1047	1021	1018	998	1002	1030	1064	1110	1053	26	1079	1.124
	10	1147	1140	1119	1120	1117	1117	1115	1107	1100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1050	38	1088	1.050
	11	—	—	—	—	—	—	—	—	—	1119	1138	1133	1128	1108	1092	1051	1040	998	1020	970	998	1020	1040	1050	1015	57	1072	1.181
	12	1078	1100	1116	1114	1108	1111	1112	1093	1076	1082	1088	1084	1080	1069	1050	1037	1027	1000	949	952	942	979	993	1030	1068	68	1036	1.479
	13	1062	1108	1116	1114	1108	1109	1109	1093	1079	1089	1100	1104	1108	1088	1070	1048	1010	980	948	929	919	930	979	1010	1092	75	1020	1.611
	14	1060	1079	1074	1079	1080	1077	1072	1065	1060	1050	1040	1040	1040	1032	1018	994	960	945	920	912	917	923	951	966	945	—	—	—
	15	980	1006	1019	1026	1030	1034	1036	1023	1012	1010	1008	1004	1000	978	948	925	899	885	872	857	880	920	931	950	977	75	1052	1.347
	16	970	995	1010	1014	1015	1012	1007	1003	1000	995	991	983	975	950	917	899	881	850	823	828	840	877	905	933	990	90	1080	1.116
	17	965	980	978	1007	1032	1035	1036	1063	1092	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1206	59	1265	0.999586
	18	—	—	—	—	—	—	—	—	—	1055	1018	1014	1010	1002	964	920	892	868	855	870	910	942	960	974	1103	51	1154	1.000504
	19	990	991	991	997	999	970	939	895	853	847	842	854	867	885	945	894	836	882	780	1190	1330	1360	1338	1274	1196	25	1221	0.999951
	20	1360	1389	1279	1272	1262	1272	1280	1303	1328	1253	1178	1193	1208	1206	1190	1154	1101	1040	1038	1080	1128	1120	1138	1178	1264	6	1270	0.9545
	21	1160	1204	1210	1207	1201	1186	1170	1172	1175	1163	1152	1143	1135	1145	1099	1068	1018	968	902	949	935	975	1039	1094	1180	4	1184	1.000256
	22	1108	1110	1052	1210	1364	1413	1460	1408	1358	1325	1293	1267	1242	1218	1173	1132	1073	998	1002	1020	1056	1100	1170	1160	1111	31	1142	0.603
	23	1190	1312	1399	1431	1460	1431	1400	1384	1370	1358	1347	1328	1310	1270	1226	1190	1122	1070	1030	1040	1090	1140	1210	1238	1079	39	1118	0.802
	24	1240	1228	1218	1226	1230	1221	1211	1207	1205	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1019	58	1077	1.141
	25	—	—	—	—	—	—	—	—	—	1211	1218	1224	1230	1245	1200	1182	1142	1100	1060	1032	1062	1106	1138	1178	995	85	1080	1.116
	26	1192	1194	1172	1169	1162	1159	1155	1141	1129	1124	1120	1110	1100	1090	1062	1019	1008	1028	1069	990	1060	1088	1132	1194	1054	92	1146	0.570
	27	1170	1157	1156	1155	1150	1128	1104	1099	1096	1100	1105	1109	1114	1110	1083	1059	1046	994	940	954	980	994	1048	1052	—	—	—	—
	28	1080	1078	1079	1087	1092	1090	1087	1079	1072	1065	1059	1054	1050	1040	1032	1010	980	963	880	788	864	930	980	1022	—	—	—	—
	29	1025	1030	1021	1031	1038	1030	1021	1020	1021	1020	1020	1028	1037	1030	1027	1002	954	918	874	870	892	910	987	1080	—	—	—	—
	30	1115	1144	1140	1142	1140	1116	1090	1097	1106	1098	1090	1070	1050	1035	1020	988	932	976	954	964	910	1002	1068	1060	—	—	—	—
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

$$k = a.Cot. v. = .0003139 \times Cot. 75.15 = .00008264$$

$$3.3963 = \text{Correction for 1 Faht.}$$

Zero for Magr. 1497 at Ther. 88.8 Corrected Zero 1215.

do. for Ther. 80.5 or Standard 80.0.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$
Madras Mean Time.		P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41				
FEBRUARY 1852. Horizontal Force Magnetometer.					5.9 *		0.9 *		4.7 *		1.7 *		-1.9 *																
	January 31	1054	1110	1141	1141	1130	1120	1109	1119	1120	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	1	—	—	—	—	—	—	—	—	—	1104	1085	1069	1057	1031	1052	1019	1017	978	980	1000	990	992	1028	1054	1063	86	1149	1.000545
	2	1098	1062	1088	1085	1071	1068	1063	1065	1057	1057	1054	1049	1048	1057	1059	1050	1004	940	868	863	887	933	987	1026	1022	80	1102	0933
	3	1032	1037	1038	1036	1022	1046	1068	1069	1060	1046	1029	1036	1047	1040	1028	1002	964	950	932	910	920	977	1012	1028	1014	75	1089	1041
	4	1040	1059	1080	1101	1110	1104	1097	1083	1060	1058	1052	1056	1063	1066	1048	1009	998	976	938	917	919	954	1019	1062	1036	56	1092	1016
	5	1071	1068	1098	1109	1108	1115	1121	1110	1090	1093	1092	1071	1054	1071	1050	1018	974	950	950	940	957	992	1052	1089	1052	25	1077	1141
	6	1100	1118	1112	1126	1128	1134	1139	1153	1158	1158	1155	1145	1139	1142	1119	1042	1084	1034	983	981	994	1040	1055	1110	1098	3	1101	0942
	7	1150	1152	1183	1201	1208	1197	1184	1196	1198	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	8	—	—	—	—	—	—	—	—	—	1177	1152	1131	1113	1128	1118	1082	1053	1031	992	984	990	1038	1032	1050	1114	-5	1109	0876
	9	1081	1101	1140	1132	1113	1116	1117	1118	1110	1106	1098	1089	1084	1071	1058	1038	996	933	925	905	940	962	992	1030	1052	7	1059	1289
	10	1065	1092	1098	1105	1100	1101	1100	1090	1070	1067	1060	1058	1059	1057	1040	1010	962	923	899	881	868	887	922	970	1020	34	1054	1331
	11	1010	1023	1040	1051	1050	1050	1048	1044	1030	1037	1040	1032	1028	1009	980	950	898	847	807	774	779	819	851	892	962	53	1015	1652
	12	935	980	1001	1010	1008	1011	1012	1012	1002	1002	998	992	989	1000	1010	992	973	934	871	844	839	895	941	890	964	52	1016	1644
	13	963	996	1003	1024	1034	1047	1058	1074	1080	1063	1042	1035	1032	1022	1000	978	934	900	769	790	811	838	870	900	969	40	1009	1702
	14	940	969	991	1015	1028	1035	1041	1054	1058	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	15	—	—	—	—	—	—	—	—	—	1140	1218	1198	1182	1304	1400	1430	1448	1447	1420	1455	1473	1380	1285	1374	1220	18	1238	0.999810
	16	1360	1363	1390	1394	1387	1340	1292	1290	1278	1264	1247	1241	1238	1260	1232	1180	1142	1109	1050	1093	1100	1157	1252	1290	1248	-2	1246	9744
	17	1340	1260	1281	1266	1239	1255	1269	1269	1260	1248	1232	1243	1257	1250	1218	1082	1030	1103	1167	917	1145	1850	1870	1620	1278	-16	1262	9611
	18	1566	1792	1733	1821	1898	1809	1718	1664	1600	1586	1568	1472	1380	1399	1438	1348	1303	1240	1299	1249	1310	1305	1345	1290	1506	-34	1472	7876
	19	1298	1451	1428	1465	1490	1456	1420	1424	1418	1447	1472	1659	1850	1819	1700	1650	1530	1584	1698	1695	1850	1760	1827	1890	1595	-39	1556	7182
	20	1827	1785	1690	1661	1620	1606	1590	1540	1480	1448	1413	1411	1412	1410	1385	1320	1247	1209	1152	1188	1222	1240	1266	1300	1434	-42	1392	8537
	21	1275	1320	1350	1466	1570	1514	1456	1433	1400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	22	—	—	—	—	—	—	—	—	—	1352	1300	1301	1306	1300	1278	1240	1180	1113	1098	1078	1106	1149	1190	1247	1293	-34	1259	9636
	23	1280	1268	1288	1279	1259	1265	1270	1260	1240	1253	1262	1254	1250	1255	1241	1230	1197	1107	1078	1049	1112	1152	1239	1270	1223	-16	1207	1.000065
	24	1258	1249	1238	1244	1239	1240	1240	1242	1235	1233	1227	1217	1210	1205	1190	1150	1082	987	932	924	964	1052	1137	1178	1161	0	1161	0447
	25	1172	1182	1188	1194	1188	1189	1189	1190	1182	1186	1187	1187	1190	1165	1130	1086	1020	958	910	885	1020	1079	1154	1231	1128	6	1134	0669
	26	1270	1246	1230	1247	1252	1258	1262	1276	1280	1273	1262	1253	1247	1220	1210	1184	1160	1111	1087	1067	1070	1101	1127	1162	1202	-18	1184	0256
	27	1190	1200	1187	1200	1201	1265	1328	1290	1242	1242	1238	1282	1330	1308	1292	1204	1193	1108	1144	1203	1200	1255	1248	1255	1234	-30	1204	0091
	28	1295	1272	1280	1275	1258	1283	1307	1273	1230	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
29	—	—	—	—	—	—	—	—	—	1232	1230	1224	1221	1236	1180	1144	1129	1060	1010	1033	1070	1127	1202	1229	1200				

$$k = a.Cot. v. = 0003139 \times Cot. 75.15 = .00008264$$

$$\frac{sec.}{3.3963} = \text{Correction for } 1^{\circ} \text{ Faht.}$$

Zero for Magr. 1497 at Ther. 88.8 Corrected Zero 1215.

do. for Ther. 80.5 or Standard 80.0.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras Mean Time.	P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41					
MARCH 1852. Horizontal Force Magnetometer.				4.8		-0.4		-0.7		0.2		-1.7																	
	1	1257	1213	1231	1221	1202	1205	1208	1206	1188	1170	1178	1190	1192	1170	1120	1094	1067	1054	1120	1108	1123	1152	1183	1169	-21	1148	1.000554	
	2	1236	1249	1230	1235	1230	1234	1239	1229	1220	1217	1214	1211	1212	1210	1190	1142	1069	1020	1002	1030	1087	1139	1179	1192	1176	-24	1152	0520
	3	1189	1189	1201	1210	1209	1211	1214	1213	1214	1212	1210	1203	1200	1194	1184	1141	1080	1028	992	981	1030	1108	1176	1209	1158	-41	1117	0810
	4	1204	1200	1212	1224	1226	1238	1250	1233	1217	1224	1230	1236	1246	1200	1180	1130	1062	1004	989	1029	1088	1151	1198	1239	1175	-68	1107	0893
	5	1230	1223	1219	1255	1281	1300	1319	1310	1303	1299	1294	1265	1240	1240	1232	1160	1090	1006	1008	1092	1138	1206	1228	1250	1216	-81	1135	0661
	6	1263	1259	1273	1305	1328	1320	1313	1313	1315																			
	7										1287	1258	1244	1234	1220	1200	1180	1122	1096	1159	1172	1244	1308	1367	1399	1257	-68	1189	0215
	8	1398	1371	1408	1380	1342	1316	1290	1264	1240	1232	1223	1500	1780	1940	1633	1400	1255	1180	1108	1120	1122	1189	1220	1288	1342	-185	1157	0480
	9	1298	1300	1346	1340	1324	1316	1308	1214	1122	1121	1120	1563	2010	2210	1370	1350	1279	1165	1097	1076	1100	1184	1260	1297	1324	-212	1112	0851
	10	1328	1299	1304	1313	1313	1265	1218	1198	1180	1141	1102	1665	2231	2210	1175	1203	1136	1115	1076	1087	1100	1176	1242	1295	1307	-199	1108	0885
	11	1293	1291	1292	1291	1280	1279	1278	1248	1220	1195	1170	1696	2225		1610	1390	1235	1137	1125	1084	1107	1133	1180	1254	1305	-204	1101	0942
	12	1317	1463	1482	1436	1380	1390	1400	1344	1290	1283	1275	1821	2370	2030	1604	1410	1295	1220	1190	1185	1241	1278	1326	1388	1434	-207	1227	0.999901
	13	1392	1369	1343	1351	1350	1342	1335	1333	1332																			
	14										1291	1250	1718	2190	1745	1520	1379	1295	1236	1235	1167	1176	1227	1255	1308	1381	-206	1175	1.000330
	15	1385	1400	1367	1358	1340	1350	1360	1313	1268	1274	1280	1673	2070	1900	1560	1425	1275	1173	1138	1157	1204	1273	1278	1293	1380	-230	1150	0537
	16	1333	1332	1332	1340	1339	1344	1350	1329	1310	1295	1280	1758	2240	2147	1707	1490	1334	1256	1222	1256	1324	1398	1450	1463	1443	-259	1184	0256
	17	1460	1419	1409	1429	1440	1395	1350	1329	1310	1297	1283	1667	2055	2150	1679	1476	1380	1230	1256	1267	1318	1389	1414	1422	1451	-265	1186	0240
	18	1382	1370	1380	1378	1367	1358	1350	1343	1338	1332	1325	1778	2234	2108	1760	1553	1389	1300	1218	1253	1267	1294	1340	1349	1449	-271	1178	0306
	19	1361	1332	1329	1335	1331	1301	1272	1295	1320	1316	1312	1304	1300	1300	1282	1223	1148	1070	1052	1126	1138	1184	1230	1237	1254	-131	1123	0760
	20	1289	1272	1299	1294	1280	1310	1340	1338	1338																			
	21										1298	1258	1272	1290	1282	1268	1218	1149	1078	1099	1070	1159	1213	1262	1278	1246	-106	1140	0620
	22	1289	1299	1318	1330	1332	1312	1293	1276	1280	1284	1280	1280	1290	1269	1200	1155	1076	1041	1040	1103	1170	1254	1320	1242	-124	1118	0802	
	23	1349	1338	1319	1323	1318	1320	1322	1316	1311	1307	1302	1299	1300	1294	1290	1251	1187	1120	1084	1110	1170	1226	1249	1250	1265	-122	1143	0595
	24	1238	1233	1248	1261	1264	1267	1270	1264	1259	1253	1246	1247	1252	1258	1224	1162	1087	1025	998	1017	1099	1172	1226	1251	1201	-98	1103	0925
	25	1248	1243	1252	1267	1273	1277	1281	1282	1284	1282	1280	1273	1270	1262	1244	1190	1105	1040	1000	1016	1020	1092	1154	1175	1200	-118	1082	1099
	26	1161	1140	1129	1132	1125	1120	1116	1132	1150	1332	1514	1485	1460	1496	1468	1420	1350	1290	1252	1314	1368	1432	1448	1452	1304	-142	1162	0438
	27	1437	1439	1417	1419	1412	1400	1388	1372	1357																			
	28										1352	1346	1351	1360	1360	1340	1291	1220	1168	1165	1210	1278	1339	1397	1409	1343	-164	1179	0297
	29	1386	1397	1378	1390	1392	1391	1390	1380	1371	1348	1324	1331	1342	1350	1317	1276	1208	1170	1206	1249	1280	1299	1317	1320	1326	-166	1160	0455
	30	1344	1332	1371	1380	1379	1390	1401	1390	1380	1370	1360	1348	1340	1310	1302	1267	1212	1162	1122	1150	1197	1255	1319	1378	1311	-161	1150	0537
	31	1419	1418	1415	1395	1366	1364	1363	1346	1330	1311	1292	1308	1328	1340	1370	1349	1290	1230	1227	1283	1319	1349	1383	1399	1341	-156	1185	0248

$$k = a.Cot. v. = .0003139 \times Cot. 75.15 = .00008264$$

$$3.3963 = \text{Correction for } 1 \text{ Faht.}$$

Zero for Magr. 1497 at Ther. 88.8 Corrected Zero 1215.

do. for Ther. 80.5 or Standard 80.0.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.	Temperature Corrections.	Corrected Means.	1 + $\frac{\Delta X}{X}$	
P. M.																													
Madras Mean Time.		h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.
		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41				
APRIL 1852. Horizontal Force Magnetometer.					5.9		0.7		1.9		0.4		-0.7																
	1	1430	1442	1461	1462	1452	1448	1442	1430	1414	1406	1397	1383	1370	1385	1342	1335	1264	1210	1168	1218	1244	1310	1378	1428	1367	-170	1197	1.000149
	2	1488	1469	1439	1455	1460	1492	1523	1489	1452	1441	1430	1419	1410	1378	1370	1325	1257	1190	1174	1226	1302	1354	1404	1412	1390	-160	1230	0.999876
	3	1388	1360	1387	1402	1405	1394	1381	1376	1368																			
	4										1374	1380	1369	1359	1340	1320	1292	1259	1180	1178	1240	1240	1388	1400	1450	1343	-170	1173	1.000347
	5	1474	1436	1400	1474	1536	1488	1439	1387	1332	1331	1330	1339	1349	1357	1328	1288	1252	1177	1158	1140	1216	1284	1358	1352	1343	-166	1177	0314
	6	1344	1331	1346	1364	1370	1361	1350	1336	1318	1320	1322	1316	1311	1300	1280	1253	1183	1110	1044	1084	1140	1188	1260	1256	1270	-144	1126	0735
	7	1310	1294	1310	1312	1302	1292	1281	1271	1257	1259	1260	1245	1231	1241	1265	1241	1169	1100	1044	960	1062	1140	1270	1282	1225	-153	1072	1181
	8	1324	1309	1292	1333	1362	1329	1294	1315	1333	1351	1368	1359	1352	1350	1340	1292	1227	1150	1112	1156	1250	1300	1348	1370	1301	-165	1136	0653
	9	1374	1389	1428	1436	1432	1415	1397	1380	1360	1349	1337	1302	1268	1257	1272	1242	1223	1180	1174	1192	1220	1257	1290	1320	1312	-176	1136	0653
	10	1347	1358	1369	1364	1348	1330	1310	1307	1301																			
	11										1315	1328	1334	1342	1340	1308	1267	1202	1158	1140	1160	1240	1342	1290	1290	1295	-182	1113	0843
	12	1290	1298	1329	1335	1329	1340	1349	1331	1310	1310	1310	1318	1327	1307	1291	1268	1170	1111	1061	1128	1180	1246	1266	1302	1271	-171	1100	0950
	13	1330	1360	1379	1385	1379	1362	1344	1329	1310	1304	1297	1288	1280	1267	1230	1217	1191	1137	1168	1260	1270	1348	1390	1348	1299	-155	1144	0587
	14	1318	1312	1332	1337	1330	1325	1318	1315	1308	1299	1290	1285	1281	1272	1250	1229	1170	1148	1102	1142	1186	1252	1290	1258	1265	-153	1112	0851
	15	1316	1318	1350	1344	1327	1316	1303	1282	1257	1264	1270	1265	1261	1290	1285	1250	1203	1193	1150	1168	1250	1300	1320	1330	1276	-154	1122	0768
	16	1348	1354	1400	1390	1368	1376	1382	1368	1350	1339	1327	1318	1310	1300	1272	1242	1172	1099	1080	1115	1174	1240	1300	1312	1289	-167	1122	0768
	17	1310	1311	1313	1326	1328	1339	1348	1352	1352																			
	18										1332	1311	1304	1298	1290	1242	1189	1147	1080	1032	1148	1248	1348	1380	1417	1281	-172	1109	0876
	19	1420	1395	1379	1387	1384	1384	1382	1369	1348	1334	1320	1309	1300	1297	1282	1260	1192	1104	1054	1149	1313	1322	1390	1360	1310	-181	1129	0710
	20	1354	1369	1543	1697	1840	1750	1658	1607	1552	1541	1530	1523	1517	1465	1460	1445	1490	1520	1590	1648	1678	1780	1790	1832	1591	-215	1376	0.998669
	21	1840	1820	1800	1775	1738	1711	1682	1643	1600	1555	1510	1523	1538	1544	1515	1447	1372	1368	1343	1351	1387	1434	1500	1548	1564	-237	1327	9075
	22	1578	1576	1544	1547	1539	1513	1486	1488	1486	1497	1508	1482	1457	1420	1461	1442	1358	1360	1408	1490	1558	1600	1636	1690	1505	-248	1257	9653
	23	1610	1607	1589	1572	1543	1538	1532	1481	1427	1439	1450	1460	1472	1480	1439	1390	1337	1310	1294	1380	1458	1484	1466	1484	1468	-240	1228	9893
	24	1528	1521	1489	1496	1491	1485	1478	1486	1490																			
	25										1470	1450	1448	1447	1442	1436	1420	1360	1317	1290	1290	1320	1362	1402	1410	1430	-239	1191	1.000199
	26	1428	1449	1442	1433	1412	1431	1448	1446	1440	1436	1431	1425	1420	1417	1400	1373	1300	1258	1222	1256	1290	1328	1358	1374	1384	-236	1148	0554
	27	1400	1433	1459	1459	1447	1444	1439	1426	1410	1408	1405	1398	1393	1390	1388	1368	1328	1258	1230	1230	1260	1338	1374	1380	1378	-238	1140	0620
	28	1430	1439	1428	1436	1432	1423	1413	1413	1410	1405	1400	1390	1382	1370	1359	1318	1250	1200	1198	1209	1248	1302	1338	1359	1356	-238	1118	0802
	29	1380	1382	1369	1372	1364	1362	1358	1361	1360	1354	1347	1347	1349	1360	1328	1293	1230	1176	1194	1218	1260	1290	1302	1365	1322	-239	1083	1091
	30	1448	1470	1445	1429	1401	1410	1418	1411	1400	1414	1428	1417	1408	1380	1340	1290	1213	1156	1185	1221	1293	1316	1323	1372	1358	-239	1119	0793
Means.....		1416	1415	1424	1435	1435	1425	1414	1400	1383	1379	1374	1368	1363	1355	1339	1307	1251	1202	1184	1222	1280	1341	1378	1396	1354			
Temp. Corrections		-222	-215																										

$$k = a.Cot. v. = .0003139 \times Cot. 75.15 = .00008264$$

$$3.3963 = \text{Correction for 1 Faht.}$$

Zero for Magr. 1497 at Ther. 88.8 Corrected Zero 1215.

do for Ther. 80.5 or Standard 80.0

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
Madras Mean Time.		P.M. 4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$
MAY 1852. Horizontal Force Magnetometer.					6.7	6.9	2.1			-0.2		1.1																	
	1	1407	1468	1469	1469	1455	1472	1488	1461	1430																1362	-216	1146	1.000570
	2										1410	1390	1386	1380	1371	1352	1300	1249	1192	1160	1197	1242	1277	1313	1343	1276	-197	1079	1124
	3	1357	1337	1338	1345	1339	1369	1398	1375	1348	1336	1325	1325	1322	1320	1284	1200	1162	1123	1098	1130	1140	1184	1220	1238	1276	-197	1079	1124
	4	1240	1240	1261	1278	1282	1286	1288	1295	1298	1282	1266	1264	1260	1245	1192	1120	1040	972	950	1001	1068	1120	1170	1165	1191	-161	1030	1529
	5	1160	1160	1180	1229	1264	1268	1270	1307	1340	1313	1287	1288	1287	1268	1236	1188	1120	1067	1121	1072	1108	1158	1210	1272	1216	-153	1063	1256
	6	1285	1282	1281	1292	1289	1302	1314	1310	1302	1315	1328	1316	1302	1296	1280	1218	1166	1087	1057	1108	1148	1267	1325	1318	1258	-164	1094	1000
	7	1337	1372	1351	1334	1304	1295	1285	1288	1286	1263	1240	1242	1242	1247	1226	1212	1142	1100	1088	1118	1143	1307	1322	1340	1254	-180	1074	1165
	8	1399	1479	1439	1446	1440	1425	1409	1406	1399																			
	9										1374	1350	1357	1362	1338	1292	1238	1202	1172	1138	1210	1229	1308	1352	1390	1340	-229	1111	0860
	10	1412	1426	1399	1408	1403	1402	1400	1386	1368	1354	1340	1331	1320	1328	1320	1298	1260	1252	1199	1175	1206	1224	1270	1345	1326	-237	1089	1041
	11	1380	1372	1361	1381	1388	1386	1382	1382	1378	1372	1366	1364	1360	1348	1322	1300	1218	1222	1212	1230	1272	1300	1336	1359	1333	-248	1085	1074
	12	1368	1372	1387	1401	1402	1385	1366	1365	1360	1350	1340	1336	1330	1318	1270	1228	1190	1162	1202	1210	1240	1276	1321	1357	1314	-238	1076	1149
	13	1370	1366	1389	1396	1389	1385	1380	1381	1378	1373	1368	1365	1360	1342	1320	1276	1214	1228	1210	1267	1310	1380	1420	1404	1345	-273	1072	1181
	14	1382	1392	1396	1400	1390	1390	1388	1386	1380	1374	1368	1364	1358	1361	1348	1320	1268	1225	1220	1250	1288	1330	1355	1370	1346	-284	1062	1264
	15	1380	1408	1407	1413	1405	1398	1390	1383	1372																			
	16										1348	1325	1323	1318	1308	1272	1220	1163	1118	1100	1112	1127	1190	1255	1297	1293	-261	1032	1512
	17	1319	1322	1322	1335	1334	1337	1338	1326	1310	1312	1314	1309	1302	1290	1250	1230	1202	1172	1180	1211	1268	1320	1362	1383	1294	-273	1021	1603
	18	1380	1390	1393	1408	1410	1428	1445	1443	1436	1428	1420	1421	1419	1418	1380	1368	1310	1277	1238	1260	1290	1330	1407	1421	1380	-287	1093	1008
	19	1387	1373	1359	1383	1393	1407	1420	1403	1382	1366	1350	1360	1368	1370	1370	1326	1262	1297	1319	1407	1420	1488	1585	1541	1389	-291	1098	0967
	20	1540	1590	1631	1592	1539	1541	1542	1498	1450	1444	1438	1439	1437	1440	1410	1392	1407	1348	1340	1372	1419	1440	1534	1510	1471	-291	1180	0289
	21	1501	1499	1494	1476	1445	1442	1437	1426	1410	1414	1418	1414	1408	1418	1404	1380	1352	1304	1322	1419	1432	1463	1460	1482	1426	-282	1144	0587
	22	1450	1440	1443	1446	1435	1403	1370	1367	1360																			
	23										1385	1410	1407	1401	1385	1340	1290	1232	1187	1176	1218	1281	1331	1376	1432	1357	-275	1082	1039
	24	1433	1432	1454	1449	1430	1422	1413	1445	1472	1443	1414	1403	1390	1370	1352	1313	1278	1237	1216	1262	1261	1289	1371	1409	1373	-287	1086	1066
	25	1439	1438	1410	1418	1413	1415	1415	1406	1392	1386	1381	1377	1370	1378	1357	1338	1303	1256	1220	1209	1248	1291	1349	1403	1359	-291	1068	1215
	26	1431	1410	1412	1418	1410	1411	1411	1403	1390	1390	1390	1385	1378	1352	1332	1280	1250	1252	1209	1264	1342	1460	1551	1589	1380	-298	1082	1099
	27	1590	1580	1561	1543	1512	1529	1545	1515	1480	1465	1450	1463	1473	1440	1406	1402	1474	1398	1281	1310	1339	1429	1470	1516	1465	-300	1165	0413
	28	1531	1569	1617	1585	1540	1536	1530	1516	1498	1489	1480	1482	1482	1466	1439	1388	1373	1337	1314	1315	1372	1420	1486	1500	1469	-316	1153	0512
	29	1480	1462	1469	1476	1469	1474	1478	1472	1462																			
	30										1441	1420	1416	1410	1398	1356	1317	1279	1258	1247	1261	1281	1316	1367	1400	1392	-320	1072	1181
	31	1419	1410	1424	1423	1409	1404	1397	1393	1384	1382	1380	1380	1378	1376	1358	1341	1298	1264	1249	1265	1330	1388	1408	1420	1370	-309	1061	1273
Means.....		1399	1407	1410	1413	1403	1404	1404	1398	1387	1377	1368	1366																

do. for Ther. 80.5 or Standard 80.0 .

$$1 + \frac{\Delta Y}{Y}$$

JUNE 1852.

Horizontal Force Magnetometer.

JUNE 1852.

Temperature of Horizontal Force Magnetometer.

Means.....

* The numbers in these columns are not observed : but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the Corrections of interpolations.

$$k = a.Cot. v. = .0003139 \times Cot. 75.15 = .00008264$$

$$\frac{sec.}{3.3963} = \text{Correction for } 1^\circ \text{ Faht.}$$

Zero for Magr. 1497 at Ther. 88.8 Corrected Zero 1215.

do. for Ther. 80.5 or Standard 80.0.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	1 + $\frac{\Delta X}{X}$
Madras Mean Time.		P.M. h.m.																											
		4.41 5.41 6.41 7.41 8.41 9.41 10.41 11.41 12.41 13.41 14.41 15.41 16.41 17.41 18.41 19.41 20.41 21.41 22.41 23.41 0.41 1.41 2.41 3.41																											
JULY 1852. Horizontal Force Magnetometer.				3.1		1.1		-1.3		2.1		-0.2																	
	1	1320	1310	1308	1321	1328	1310	1290	1285	1282	1286	1285	1282	1280	1264	1257	1240	1248	1190	1170	1148	1182	1230	1280	1304	1267	-229	1038	1.001465
	2	1300	1297	1292	1303	1308	1318	1326	1323	1322	1322	1317	1303	1290	1267	1235	1230	1217	1207	1182	1198	1218	1244	1299	1360	1278	-228	1050	1364
	3	1352	1338	1332	1333	1328	1319	1308	1303	1300																			
	4										1296	1287	1283	1280	1272	1259	1250	1197	1152	1144	1190	1250	1274	1294	1348	1279	-216	1063	1256
	5	1356	1339	1336	1326	1310	1311	1310	1302	1297	1291	1281	1275	1270	1287	1272	1268	1243	1190	1160	1163	1198	1230	1300	1358	1278	-210	1068	1215
	6	1391	1388	1377	1351	1318	1305	1290	1284	1280	1278	1272	1270	1269	1240	1203	1200	1200	1127	1178	1164	1189	1227	1235	1290	1264	-214	1050	1364
	7	1340	1359	1350	1363	1370	1382	1392	1396	1402	1399	1392	1381	1371	1334	1304	1271	1249	1259	1274	1340	1394	1452	1572	1626	1374	-237	1137	0645
	8	1618	1542	1508	1490	1465	1443	1418	1418	1420	1407	1390	1381	1372	1369	1323	1295	1279	1259	1274	1261	1255	1283	1317	1342	1380	-246	1134	0669
	9	1328	1334	1332	1327	1315	1310	1302	1310	1320	1331	1338	1357	1376	1308	1230	1232	1290	1330	1292	1337	1406	1413	1431	1458	1334	-229	1105	0909
	10	1482	1532	1519	1525	1525	1516	1504	1509	1516																			
	11										1444	1368	1362	1356	1346	1298	1334	1311	1284	1257	1234	1297	1293	1292	1339	1393	-240	1153	0512
	12	1360	1339	1347	1353	1353	1372	1388	1368	1350	1359	1364	1353	1342	1332	1302	1290	1250	1260	1292	1289	1310	1348	1362	1448	1339	-261	1078	1133
	13	1398	1421	1404	1396	1382	1392	1400	1381	1364	1359	1350	1346	1342	1310	1303	1320	1332	1310	1329	1309	1288	1337	1392	1410	1357	-269	1088	1050
	14	1390	1403	1399	1409	1413	1417	1418	1397	1378	1377	1372	1361	1350	1330	1329	1308	1300	1262	1231	1260	1264	1348	1432	1421	1357	-282	1075	1157
	15	1420	1428	1389	1383	1370	1369	1365	1365	1368	1352	1332	1330	1329	1335	1298	1260	1227	1212	1210	1212	1242	1328	1409	1450	1333	-276	1057	1306
	16	1454	1410	1419	1411	1396	1394	1390	1381	1374	1372	1366	1363	1360	1362	1352	1305	1270	1248	1240	1253	1290	1295	1318	1357	1349	-275	1074	1165
	17	1365	1362	1364	1368	1365	1365	1362	1360	1360																			
	18										1352	1340	1332	1325	1310	1292	1260	1223	1197	1164	1170	1216	1264	1280	1305	1304	-268	1036	1479
	19	1324	1348	1362	1361	1353	1349	1342	1336	1332	1328	1320	1318	1317	1308	1291	1268	1215	1209	1198	1190	1190	1222	1250	1282	1292	-267	1025	1570
	20	1308	1329	1342	1344	1339	1337	1332	1328	1327	1326	1320	1318	1317	1305	1290	1260	1206	1164	1149	1134	1164	1201	1218	1248	1275	-255	1020	1611
	21	1261	1269	1268	1273	1272	1267	1260	1249	1240	1235	1226	1225	1225	1227	1216	1155	1108	1050	1047	1053	1067	1060	1078	1110	1185	-208	977	1967
	22	1154	1162	1168	1176	1178	1176	1171	1164	1159	1163	1162	1156	1150	1135	1120	1090	1025	980	960	960	994	1020	1052	1084	1107	-138	969	2033
	23	1130	1142	1144	1154	1158	1155	1150	1153	1158	1162	1162	1161	1160	1148	1115	1087	1041	994	967	972	1003	1030	1054	1086	1104	-129	975	1983
	24	1128	1148	1146	1148	1143	1143	1140	1143	1149																			
	25										1172	1190	1183	1177	1171	1162	1147	1090	1060	1046	1060	1098	1148	1206	1220	1142	-140	1002	1760
	26	1230	1221	1214	1224	1228	1221	1212	1206	1202	1203	1200	1196	1192	1170	1168	1148	1087	1086	1049	1063	1048	1160	1172	1204	1171	-174	997	1802
	27	1217	1222	1242	1250	1252	1258	1262	1236	1213	1224	1230	1222	1215	1229	1246	1238	1208	1157	1130	1171	1199	1249	1249	1302	1226	-186	1040	1446
	28	1312	1290	1338	1353	1361	1328	1292	1303	1317	1306	1290	1285	1281	1245	1210	1207	1158	1080	1078	1075	1120	1208	1291	1340	1253	-175	1078	1133
	29	1325	1332	1371	1348	1319	1306	1290	1275	1262	1257	1247	1258	1270	1282	1253	1202	1248	1201	1201	1222	1254	1234	1256	1272	1270	-162	1108	0885
	30	1316	1298	1314	1309	1297	1289	1278	1248	1220	1226	1227	1223	1220	1212	1202	1175	1100	1092	1070	1129	1154	1206	1248	1280	1222	-127	1095	0991
Means.....		1330	1329	1330	1331	1325	1321	1315	1309	1304	1301	1293	1289	1286	1273	1251	1232	1205	1175	1165	1175	1203	1242	1280	1317	1274			
Temp. Corrections		-243	-240	-235																									

do. for Ther. $80\cdot5$ or Standard $80\cdot0$.

Means.	temperature corrections.	Corrected Means.	$1 + \frac{\Delta X}{\bar{X}}$
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Temperature of Horizontal Force Magnetometer.

* The numbers in these Columns are not observed ; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the Corrections of interpolations.

Zero for Magr. 1497 at Ther. $88^{\circ}8$ Corrected Zero 1215.
do for Ther. $80^{\circ}5$ or Standard $80^{\circ}0$

* The numbers in these Columns are not observed; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the Corrections of interpolations.

do. for Ther. $80\cdot5$ or Standard $80\cdot0$.

*The numbers in these Columns are not observed; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the Corrections of interpolations.

$$k = a.Cot. v. = .0003139 \times Cot. 75.15 = .00008264$$

$$3.3963 = \text{Correction for } 1 \text{ Faht.}$$

Zero for Magr. 1497 at Ther. 88.8 Corrected Zero 1215.

do. for Ther. 80.5 or Standard 80.0.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
NOVEMBER 1852. Horizontal Force Magnetometer.				2.4		-5.1		4.1		1.1		-1.6																	
	1	1159	1162	1143	1156	1165	1142	1129	1118	1099	1090	1078	1088	1102	1068	1062	1033	1037	1050	990	1020	1063	1087	1120	1160	1097	-51	1046	1.001397
	2	1172	1139	1150	1142	1130	1123	1127	1123	1110	1107	1102	1098	1098	1110	1105	1074	1019	959	922	917	959	1002	1058	1095	1077	-66	1011	1686
	3	1072	1079	1087	1092	1093	1065	1048	1053	1049	1061	1070	1074	1081	1084	1040	1019	965	935	900	906	950	999	1032	1031	1033	-50	983	1917
	4	1048	1058	1073	1081	1084	1076	1079	1088	1088	1084	1078	1068	1062	1051	1020	970	936	869	867	895	958	1012	1062	1057	1028	-36	992	1842
	5	1045	1072	1108	1126	1140	1105	1081	1076	1062	1052	1040	1043	1050	1042	1020	1001	960	925	920	952	998	1031	1062	1082	1041	-20	1021	1603
	6	1042	1048	1050	1075	1095	1081	1078	1078	1070																			
	7										1047	1022	1024	1030	1029	1008	969	916	882	879	892	931	969	1002	1027	1010	00	1010	1694
	8	1022	1022	1033	1034	1030	1032	1044	1031	1010	1015	1017	1012	1010	1010	1008	978	939	893	840	829	860	899	950	990	980	2	982	1925
	9	1020	1028	1031	1032	1029	1030	1041	1037	1024	1015	1004	998	995	984	952	900	858	818	821	790	874	926	970	992	965	9	974	1992
	10	1001	986	1020	1052	1079	1049	1029	1020	1002	996	987	989	995	998	988	935	897	868	832	838	829	888	939	990	967	-6	961	2099
	11	1012	1042	1022	1022	1018	1039	1070	1135	1192	1167	1139	1165	1194	1190	1176	1119	1072	1038	1086	1040	1109	1195	1260	1295	1117	-31	1086	1000
	12	1256	1311	1279	1242	1200	1200	1210	1209	1200	1194	1186	1181	1180	1176	1136	1084	1019	980	1002	1010	1033	1088	1159	1200	1156	-46	1110	0868
	13	1182	1218	1219	1218	1213	1191	1180	1191	1193																			
	14										1158	1120	1112	1107	1107	1072	1022	978	929	871	810	900	980	1027	1065	1086	-17	1069	1190
	15	1082	1083	1081	1084	1082	1071	1070	1074	1070	1066	1060	1053	1050	1040	1040	1012	969	930	899	902	958	1000	1020	1052	1031	-3	1028	1521
	16	1060	1054	1051	1048	1040	1049	1069	1050	1022	1022	1020	1031	1046	1038	1022	982	930	892	905	978	999	1047	1090	1102	1023	1	1024	1568
	17	1095	1088	1071	1079	1082	1074	1077	1085	1084	1082	1078	1071	1068	1064	1050	1012	999	962	923	918	967	1020	1102	1120	1049	-4	1045	1405
	18	1150	1176	1189	1174	1154	1121	1099	1069	1030	1048	1064	1065	1070	1060	1050	1028	979	924	849	882	926	970	1050	1061	1050	5	1055	1322
	19	1032	1028	1031	1039	1042	1032	1032	1039	1038	1040	1040	1020	1004	1008	998	957	913	866	847	871	887	927	981	1002	986	8	994	1826
	20	1013	1003	1029	1031	1029	1022	1025	1026	1019																			
	21										1006	990	994	1002	981	954	918	876	844	812	805	879	932	970	986	964	7	971	2017
	22	991	983	984	990	992	988	995	1001	998	999	997	996	998	1002	962	910	892	880	878	928	958	973	987	992	970	-2	968	2042
	23	970	949	943	971	994	998	1012	1010	1000	991	979	982	989	1010	958	908	869	829	800	820	870	942	993	1015	950	5	955	2148
	24	1009	990	1006	1006	1002	1005	1018	1019	1012	992	970	973	980	965	932	892	839	801	769	802	868	940	970	987	948	8	956	2140
	25	1010	1002	990	989	984	975	975	984	984	988	990	988	990	985	949	910	890	845	828	836	878	921	972	998	953	-1	952	2173
	26	999	983	995	994	988	1024	1070	1074	1070	1063	1054	1045	1040	1056	1026	982	947	915	922	944	983	1008	1030	1041	1011	-10	1001	1769
	27	1030	1045	1080	1058	1030	1058	1096	1079	1053																			
	28										1037	1018	1017	1020	1012	1000	960	923	869	866	880	891	908	947	982	994	-14	980	1942
	29	1000	989	994	1000	1001	991	992	991	982	982	980	973	970	968	962	948	930	890	860	849	869	880	908	930	952	4	956	2074
	30	960	972	980	989	993	986	990	994	990	976	960	948	940	930	882	852	762	810	845	912	978	990	1020	1086	948	5	953	2165
Means.....		1055	1058	1063	1066	1065	1059	1063	1064	1056	1049	1040	1039	1041	1037	1014	976	935	900	882	893	938	982	1026	1051	1015			
Temp. Corrections		-28	-24	-21	-18	-16	-14	-13	-11	-11	-7	-5	-2	-2	1	3	4	3	-2	-7	-15	-20	-25	-27	-28				

Zero for Magr. 1497 at Ther. $88^{\circ}8$ Corrected Zero 1215.
do for Ther. $80^{\circ}5$ or Standard $80^{\circ}0$

[illegible]

* The numbers in these Columns are not observed ; but interpolated for the sake of obtaining the daily Means, and those numbers on the heads of them are the Corrections of interpolations.

$$k = a \cdot \cot \theta \left(\frac{T}{T'} \right)^2 = 0000291 \times \cot 737'45'' \times \left(\frac{6.900}{11.154} \right) = 00008314 \quad \frac{q}{k} = \frac{000360}{000083} = 4.330 = 1 \text{ Faht.} \quad \text{Zero } 80.0 \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta Y}{Y}$
Madras Mean Time.		P. M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					
		4:41	5:41	6:41	7:41	8:41	9:41	10:41	11:41	12:41	13:41	14:41	15:41	16:41	17:41	18:41	19:41	20:41	21:41	22:41	23:41	0:41	1:41	2:41	3:41					
JANUARY 1852. Vertical Force Magnetometer.					-4.3		-7.7		-9.9		-2.4		12.0																	
	1	4347	4373	4453	4394	4343	4324	4320	4293	4285	4273	4266	4308	4326	4296	4287	4265	4513	4558	4491	4478	4490	4490	4493	4528	4383	70	4453		
	2	4440	4343	4324	4318	4320	4312	4320	4292	4283	4281	4283	4287	4267	4267	4246	4112	4113	4233	4303	4385	4708	4802	4679	4438	4348	59	4407		
	3	4304	4309	4309	4307	4314	4291	4283	4273	4283																				
	4										4209	4139	4182	4202	4276	4276	4204	4204	4310	4464	4524	4671	4703	4590	4670	4346	55	4401		
	5	4387	4398	4328	4255	4191	4225	4275	4265	4275	4286	4301	4322	4320	4225	4252	4261	4292	4270	4293	4217	4446	4581	4635	4455	4323	48	4371		
	6	4303	4287	4388	4370	4360	4297	4249	4239	4249	4276	4307	4319	4307	4240	4221	4161	4161	4228	4194	4352	4516	4631	4631	4631	4330	62	4392		
	7	4491	4399	4347	4343	4347	4315	4298	4277	4275	4273	4275	4308	4318	4251	4290	4200	4200	4264	4213	4393	4600	4667	4605	4503	4352	65	4417		
	8	4360	4351	4347	4343	4347	4339	4347	4312	4296	4311	4330	4330	4307	4294	4294	4238	4250	4582	4773	4797	5084	5139	4984	4793	4485	49	4534		
	9	4483	4373	4342	4340	4346	4348	4366	4309	4271	4269	4271	4275	4255	4220	4220	4211	4259	4184	4145	4145	4393	4547	4475	4382	4310	15	4325		
	10	4319	4229	4229	4211	4202	4200	4214	4205	4215																				
	11										4205	4199	4188	4154	4154	4128	4095	3936	4096	4078	4154	4293	4481	4538	4389	4213	2	4215		
	12	4349	4325	4316	4274	4241	4233	4241	4214	4206	4237	4272	4284	4272	4184	4213	4239	4233	4130	3968	3855	3901	4110	4315	4313	4205	4	4209		
	13	4344	4252	4218	4214	4218	4207	4212	4196	4199	4228	4262	4274	4262	4169	4169	4191	4193	4354	4530	4613	4993	5173	4935	4727	4381	19	4400		
	14	4466	4355	4355	4333	4319	4304	4305	4283	4280	4278	4280	4292	4280	4245	4245	4215	4242	4314	4314	4333	4470	4496	4518	4434	4332	44	4376		
	15	4375	4375	4352	4335	4327	4319	4326	4303	4299	4289	4284	4296	4284	4192	4192	4237	4217	4339	4495	4625	4645	4645	4603	4634	4375	52	4427		
	16	4474	4474	4402	4384	4375	4354	4349	4330	4330	4299	4272	4284	4272	4272	4272	4228	4342	4475	4388	4379	4538	4354	4420	4252	4355	58	4413		
	17	4547	4506	4450	4461	4480	4475	4405	4414	4442																				
	18										4380	4322	4334	4322	4297	4297	4353	4456	4619	4745	4766	4678	4678	4546	4466	4477	63	4540		
	19	4450	4423	4412	4408	4412	4317	4237	4257	4297	4295	4297	4317	4313	4510	4394	4334	4409	4301	5199	4592	4626	4736	4554	4605	4446	83	4529		
	20	4670	4538	4228	4160	4100	4193	4301	4299	4317	4196	4080	4145	4186	4186	4186	4291	4317	4244	4203	4266	4186	4143	4298	4407	4256	61	4317		
	21	4343	4390	4326	4322	4326	4281	4251	4246	4261	4262	4268	4233	4175	4175	4202	4169	4300	4580	4614	4522	4642	4705	4617	4433	4360	38	4398		
	22	4373	4355	4266	4393	4529	4430	4346	4290	4254	4238	4226	4231	4213	4139	4175	4214	4277	4470	4410	4363	4183	4117	41	1	4075	12	4291		
	23	4148	4400	4384	4330	4285	4223	4176	4188	4219	4217	4219	4205	4168	4110	4145	4165	4251	4440	4499	4528	4528	4458	4461	4306	4294	-19	4275		
	24	4278	4203	4194	4395	4604	4586	4584	4574	4584																				
	25										4442	4304	4429	4531	4738	4452	4372	4466	4746	4841	4970	4923	4877	4757	4752	4567	-20	4547		
	26	4752	4696	4696	4692	4696	4677	4673	4663	4673	4660	4651	4663	4651	4628	4587	4587	4883	5098	5285	5285	5294	5084	5140	5190	4829	11	4840		
	27	4888	4780	4780	4737	4703	4645	4603	4607	4631	4652	4677	4677	4654	4646	4616	4714	4834	5047	5047	5382	5598	5420	5120	4933	4850	20	4870		
	28	4939	4816	4801	4804	4816	4795	4789	4771	4773	4771	4773	4759	4722	4685	4644	4705	4705	4897	5055	5224	5449	5359	5094	5044	4883	41	4924		
	29	4950	4950	4869	4865	4869	4844	4834	4824	4834	4832	4834	4857	4856	4749	4803	4825	4825	5020	5180	5188	5229	5271	5312	5443	4961	69	5030		
	30	5281	5103	4935	4942	4958	4873	4804	4794	4804	4790	4781	4842	4880	4880	4762	4585	4482	4551	4262	4316	4478	5165	4815	4725	4784	84	4868		
Means.....		4502	4462	4425	4420	4424	4400	4389	4374	4378	4363	4353	4371	4365	4347	4330	4314	4364	4475	4538	4563	4675	4724	4664	4597	4451				
Temp. Corrections</																														

Zero 80.0 Ther.

VERTICAL FORCE MAGNETOMETER.

* The numbers in these columns are not observed but interpolated for the sake of obtaining the daily Means, and the small figures heading them are the Corrections of interpolations.
† 10039 Reading correct but Magnetometer disturbed.

$$k = a. \cot. \theta \left(\frac{T}{T'} \right)^2 = .0000291 \times \cot 7^\circ 37' 43'' \times \left(\frac{6.903}{11.565} \right)^2 = .00007741$$

$$\frac{q}{k} = \frac{.360}{.077} = 4.651 = 1 \text{ Faht.}$$

Zero 80.0 Ther.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.		P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.			
		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41				
MARCH 1852. Vertical Force Magnetometer.					6.4		0.3		1.7		13.2		24.2																
	1	4862	4533	4588	4524	4448	4448	4448	4500	4549	4478	4381	4440	4450	4450	4404	4545	4757	4995	5230	4892	4713	4886	5245	5191	4665	-51	4614	
	2	5032	4627	4442	4451	4447	4447	4447	4413	4376	4411	4419	4443	4419	4404	4282	4235	4348	4566	4805	4824	4712	4599	4468	4568	4504	-56	4448	
	3	4493	4499	4452	4441	4417	4375	4332	4343	4350	4341	4305	4329	4305	4292	4274	4393	4671	4998	5364	5556	5556	5369	5035	4599	4629	-84	4545	
	4	4270	4455	4463	4429	4382	4355	4328	4266	4200	4274	4322	4363	4355	4111	4150	4341	4635	5191	5269	5103	4857	4571	4339	4145	4466	-116	4350	
	5	4195	4277	4260	4327	4381	4381	4381	4297	4209	4223	4210	4199	4140	4080	4130	4341	4874	5282	5550	5139	4987	4846	4604	4619	4497	-139	4358	
	6	4516	4484	4459	4479	4487	4443	4598	4371	4341																			
	7										4296	4225	4226	4179	4179	4210	4293	4414	4516	4536	4678	4720	4856	4577	4577	4436	-113	4323	
	8	4537	4435	4430	4328	4214	4214	4214	4227	4236	4264	4266	4281	4247	4247	4211	4268	4337	4525	4741	4797	4715	4664	4664	4581	4402	-109	4293	
	9	4581	4520	4482	4424	4354	4354	4354	4258	4119	4248	4351	4350	4301	4233	4175	4371	4544	4842	5621	5109	5109	4960	4827	4520	4516	-71	4445	
	10	4492	4365	4373	4370	4355	4250	4145	4207	4265	4278	4265	4304	4295	4240	4129	4282	4407	4483	4561	4607	4686	4906	4906	4685	4411	-74	4337	
	11	4524	4444	4389	4370	4339	4323	4306	4292	4274	4268	4235	4269	4215	4191	4109	4176	4290	4759	4759	4689	4601	4601	4722	4775	4413	-99	4314	
	12	4834	4511	4475	4371	4255	4316	4377	4299	4218	4241	4237	4258	4230	4153	4208	4192	4256	4428	4716	4840	4774	4682	4786	4900	4440	-116	4324	
	13	4538	4415	4318	4324	4318	4269	4219	4249	4275																			
	14										4247	4192	4223	4205	4163	4186	4354	4549	4621	4748	4932	4911	4705	4672	4750	4433	-146	4287	
	15	4750	4419	4246	4252	4246	4246	4246	4141	4033	4109	4159	4233	4258	4223	4073	4175	4494	4828	5034	5018	4892	4560	4355	4552	4398	-170	4228	
	16	4552	4405	4253	4259	4253	4241	4229	4189	4146	4180	4188	4170	4104	4043	4156	4252	4490	4853	5184	5011	4865	4604	4604	4795	4393	-177	4216	
	17	4459	4327	4237	4203	4157	4157	4157	4113	4065	4055	4019	4085	4103	3774	3879	3982	4216	4624	4733	4700	4567	4461	4428	4391	4246	-183	4063	
	18	4254	4230	4192	4180	4156	4156	4156	4116	4073	4109	4118	4142	4118	4068	4087	4174	4239	4317	4437	4399	4399	4432	4411	4411	4224	-183	4041	
	19	4449	4342	4333	4330	4315	4315	4315	4293	4267	4280	4267	4271	4226	4226	4261	4304	4352	4561	4617	4529	4441	4468	4468	4486	4363	-162	4201	
	20	4455	4431	4431	4356	4268	4287	4305	4320	4332																			
	21										4374	4390	4429	4419	4375	4403	4438	4510	4587	4620	4510	4489	4414	4327	4327	4408	-156	4252	
	22	4252	4247	4251	4257	4251	4229	4206	4191	4173	4186	4173	4201	4181	4155	4124	4152	4286	4479	4571	4707	4707	4595	4497	4419	4312	-185	4127	
	23	4381	4355	4355	4336	4304	4290	4275	4259	4240	4244	4222	4246	4222	4184	4102	4183	4193	4279	4366	4531	4451	4365	4204	4204	4283	-187	4096	
	24	4182	4223	4213	4217	4208	4208	4194	4176	4205	4207	4214	4173	4184	4166	4214	4258	4328	4450	4512	4422	4336	4276	4276	4276	4252	-151	4101	
	25	4271	4268	4282	4283	4271	4262	4253	4255	4253	4258	4236	4260	4236	4228	4204	4240	4283	4384	4517	4539	4449	4417	4381	4350	4308	-176	4132	
	26	4350	4319	4319	4321	4311	4311	4311	4339	4364	4418	4446	4438	4381	4402	4296	4296	4387	4407	4427	4501	4395	4395	4162	4186	4353	-214	4139	
	27	4186	4161	4216	4207	4185	4171	4157	4146	4132																			
	28										4128	4097	4130	4114	4125	4097	†	6712	7404	7650	7566	7148	6591	5954	5832	?			
	29	5824	6053	5838	5890	5929	5902	5875	5887	5895	5832	5742	5811	5832	5832	5970	6423	6897	7502	7610	7006	6697	6621	6675	6741	6262	-251	6011	
	30	6621	6243	6320	6261	6189	6150	6111	6143	6171	6061	5924	5948	5924	5762	5621	5686	5664	6028	6451	6715	6744	6485	6410	6410	6168	-240	5928	
31	6376	627																											

VERTICAL FORCE MAGNETOMETER.

Temperature of Vertical Force Magnetometer.

* The numbers in these columns are not observed but interpolated for the sake of obtaining the daily Means, and the small figures heading them are the Corrections of interpolations.
† Cleaned the axes of the needle. ‡ Out of the field. Brought the needle nearly level by the adjusting screws.
N. B.—The small figures are Observations made when experimenting on the Temperature.

$$k = a \cdot \cot \theta \left(\frac{T}{T'} \right)^2 = 0000291 \times \cot 738'25'' \times \left(\frac{6.905}{15.420} \right)^2 = 00004350$$

$$\frac{q}{k} = \frac{.360}{.044} = 8.276 = 1 \text{ Faht.}$$

Zero 80.0 Ther.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$		
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41						
MAY 1852. Vertical Force Magnetometer.				-13.1	-17.1	6.2			-0.9	10.6																				
	1	4129	3935	3848	3676	3530	3470	3444	3450	3444																				
	2										3428	3413	3390	3345	3260	3311	3311	3825	4360	4579	4614	4428	4080	3934	3934	3756	-557	3199		
	3	3513	3685	3634	3591	3574	3557	3574	3552	3517	3508	3501	3463	3404	3306	3553	4070	4408	4824	5269	5291	4954	4906	5009	4672	4014	-511	3503		
	4	4493	4116	3910	3839	3794	3733	3707	3679	3638	3609	3581	3436	3269	3269	3075	3381	3537	3764	4154	4018	3886	3868	3522	3329	3692	-422	3270		
	5	3423	3423	3539	3605	3698	3612	3561	3638	3703	3324	2946	3130	3292	3161	3257	3257	3090	3178	2677	3080	3304	3487	3618	3510	3355	-400	2955		
	6	3510	3460	3413	3398	3410	3423	3470	3400	3317	3316	3317	3300	3261	2985	3026	2979	3536	4212	4717	4463	4797	4917	3817	3644	3629	-436	3193		
	7	3724	3594	3426	3398	3397	3364	3366	3348	3317	3281	3247	3270	3271	2945	2746	2962	3167	3680	4316	5494	4908	4637	3989		3588	-469	3119		
	8	4360	3930	3487	3512	3564	3477	3425	3431	3425																				
	9												3426	3429	3440	3429	3217	3082	3562	4268	4760	5037	4937	4865	4527	4235	4096	3872	-593	3279
	10	3662	3612	3546	3533	3546	3529	3546	3517	3476	3419	3363	3465	3545	3207	3103	3292	3624	3963	3542	3915	4165	3817	3621	3644	3569	-612	2957		
	11	3644	3440	3440	3447	3481	3433	3420	3411	3390	3378	3367	3346	3304	3175	3025	2980	3192	3353	3154	3442	3040	2984	2984	3061	3287	-640	2647		
	12	3379	3603	3575	3584	3620	3526	3466	3426	3374	3373	3374	3389	3383	3444	3506	3558	3813	4020	3956	3626	3356	3356	3492	3634	3535	-608	2927		
	13	3585	3554	3609	3579	3575	3511	3482	3425	3356	3402	3449	3460	3449	3348	3453	3568	4004	4347	4748	4210	4047	3805	3092	2858	3622	-699	2923		
	14	3239	3615	3473	3460	3473	3429	3419	3424	3416	3415	3416	3393	3349	3335	3656	4011	4260	4347	4541	4782	4685	4722	4369	4010	3806	-720	3086		
	15	4010	3812	3698	3656	3640	3581	3557	3607	3645																				
	16												3607	3570	3561	3530	3530	3391	3469	3826	4189	4378	4465	4486	4405	3987	3553	3798	-662	3136
	17	3318	3478	3580	3571	3588	3571	3588	3517	3433	3432	3433	3407	3360	3360	3345	3414	3797	4248	4605	5006	4899	4145	3997	3624	3738	-698	3040		
	18	3327	3624	3637	3601	3592	3618	3678	3747	3804	3614	3426	3394	3340	3340	3461	3887	4214	4885	5067	4697	4159	4013	3729	3477	3805	-735	3070		
	19	3205	3414	3435	3422	3435	3450	3500	3534	3556	3444	3334	3425	3494	3494	3596	3404	3692	4344	4266	3714	3346	3469	3468	3301	3531	-737	2794		
	20	3214	3460	3731	3468	3232	3219	3241	3162	3071	3143	3216	3264	3291	3291	3100	3655	3763	4423	4496	4509	3950	4008	4121	4192	3593	-738	2855		
	21	3630	3505	3535	3442	3375	3353	3365	3371	3365	3488	3612	3588	3542	3436	3465	3746	4235	4531	4878	4510	3846	3841	3841	3866	3724	-719	3005		
	22	3673	3574	3574	3561	3574	3535	3531	3537	3531																				
	23												3544	3559	3570	3559	3479	3555	3446	3658	3889	4052	4539	4217	3826	3845	3657	3687	-702	2985
	24	3512	3632	3794	3618	3469	3452	3469	3471	3460	3500	3541	3516	3469	3129	3203	3160	3693	3949	4383	4571	4512	4859	4991	4248	3775	-718	3057		
	25	4088	3761	3602	3589	3602	3606	3645	3596	3535	3534	3535	3521	3486	3329	3010	3256	3527	3950	3990	3958	3635	3620	3582	3671	3610	-734	2876		
	26	3804	3680	3660	3647	3660	3589	3552	3526	3488	3508	3529	3540	3529	3291	3291	3364	3887	4207	4141	4582	4932	4606	4175	4201	3808	-756	3052		
	27	3676	3592	3356	3372	3415	3398	3415	3365	3302	3374	3447	3576	3683	3309	2975	3278	3430	4010	4073	3942	3915	4394	3811	3627	3572	-756	2816		
	28	3340	3764	3805	3632	3485	3468	3485	3524	3551	3510	3470	3423	3355	3452	3712	3904	4238	4293	3948	4270	3977	3944	4012	3773	3722	-803	2919		
	29	3672	3622	3596	3565	3561	3545	3563	3557	3539																				
	30												3536	3535	3546	3535	3561	3796	4079	4079	4132	4039	3865	3601	3647	4020	3692	3703	-795	2908
31	3814	3865	3738	3654	3596	3564	3566	3604	3629	3607	3586	3561	3514	3474	4111	4303	4728	5230	5561	6054	5757	5004	4448	4219	4174	-785	3389			
Means.....		3652	3644	3602	3555	3534	3501	3501	3493	3472	3451	3431	3437	3423	3325	3346	3503	3819	4176	4309	4361	4241	4121							

Zero 80°0 Ther.

JUNE 1852.

JUNE 1852.

* The numbers in these Columns are not observed, but interpolated for the sake of obtaining the daily Means, and the small figures heading them are the Corrections of interpolations.

$$k = a \cdot \cot. \theta \left(\frac{T}{T'} \right)^2 = 0.000291 \times \cot. 73^\circ 36' \times \left(\frac{6.907}{15.442} \right)^2 = 0.0004338 \quad \frac{q}{k} = \frac{360}{.043} = 8.298 = 1^\circ \text{Faht.} \quad \text{Zero } 80.0^\circ \text{Ther.}$$

VERTICAL FORCE MAGNETOMETER.

Göttingen Mean Time.		Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta T}{T}$			
P.M.																															
Madras Mean Time.		h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.		
		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41						
JULY 1852. Vertical Force Magnetometer.				2.9		-20.4		-8.1		7.2		17.5																			
	1	3719	3588	3586	3589	3586	3556	3530	3479	3445	3428	3396	3398	3365	3275	3352	3327	3592	3650	3308	3671	3523	3546	3491	3278	3487	-580	2907			
	2	3213	3243	3358	3401	3439	3515	3595	3531	3483	3490	3483	3451	3385	3389	3501	3685	3873	3810	3656	3571	3443	3450	3863	3863	3529	-579	2950			
	3	3515	3494	3518	3521	3518	3517	3520	3512	3520																					
	4													4976	6418	6413	6374	6204	6139	5710	5159	5424	5504	6087	6058	6026	5921	5815			
	5	5780	6003	6178	5930	5677	5708	5744	5736	5744	5751	5744	5684	5589	5428	5506	5984	6160	6006	5881	6230	6753	6701	6638	6305	5953	-534	5419			
	6	6080	5780	5921	5910	5893	5795	5701	5711	5737	5727	5703	5720	5703	5579	5579	5464	5404	4715	4905	4713	4593	4905	4873	4999	5463	-552	4911			
	7	5176	5457	5795	5798	5795	5795	5799	5791	5799	5738	5663	5680	5663	5665	5765	5988	6020	5817	4911	5348	5746	6071	5987	6079	5723	-608	5115			
	8	6079	6041	5585	5536	5482	5456	5435	5427	5435	5535	5620	5555	5456	5696	5523	5391	5544	5635	5776	5695	5755	5715	5584	6008	5624	-627	4997			
	9	6076	5960	5792	5736	5674	5690	5710	5702	5710	5820	5915	5688	5427	5353	4856	4570	5793	6414	6655	6661	6371	6051	5577	5916	5797	-592	5205			
	10	5576	5755	5564	5653	5737	5622	5511	5503	5511																					
	11													5555	5584	5611	5603	5520	5703	5660	5773	6066	5963	6172	6943	6060	5536	5582	5740	-612	5128
	12	5689	5769	5743	5746	5743	5741	5743	5649	5571	5619	5652	5608	5530	5569	5621	5774	5899	5779	6218	5842	5822	5630	5495	5776	5718	-661	5057			
	13	5440	5635	5592	5550	5502	5500	5502	5493	5501	5538	5561	5578	5561	5474	5730	5787	5736	5856	6235	6027	5677	5789	5759	5552	5649	-681	4968			
	14	5457	5674	5767	5746	5720	5687	5659	5584	5526	5533	5526	5522	5484	5534	5612	5665	5705	5493	6023	6429	5821	5876	5705	5144	5662	-714	4948			
	15	5476	5771	5518	5500	5476	5474	5476	5530	5601	5608	5601	5608	5580	5570	5639	5923	6185	6547	7131	6480	6349	6874	5435	5809	5840	-698	5142			
	16	5838	5765	5675	5651	5622	5620	5622	5616	5626	5619	5598	5597	5561	5506	5686	5577	5684	5959	6025	5777	5516	5200	5304	5705	5640	-692	4948			
	17	5842	5622	5706	5646	5580	5578	5580	5608	5653																					
	18													5638	5609	5612	5581	5494	5551	5586	5617	5983	6260	6452	6154	5977	5883	5672	5745	-685	5060
	19	5733	5823	5771	5728	5679	5666	5658	5625	5609	5599	5575	5592	5575	5562	5860	5920	6044	6152	5760	5356	5579	6005	6133	5813	5742	-682	5060			
	20	5577	5577	5773	5706	5633	5631	5633	5619	5622	5629	5622	5606	5556	5524	5697	5755	6240	6497	6446	5970	5442	4883	4765	5068	5645	-656	4989			
	21	5309	5622	5568	5571	5568	5506	5449	5441	5449	5474	5484	5477	5435	5402	5369	4943	5164	5680	5944	5787	5635	5423	5750	5924	5516	-539	4977			
	22	6081	5963	5790	5636	5477	5254	5035	4987	4955	4972	4974	4948	4888	4838	4982	4946	5135	5218	5043	4452	4140	3910	4104	4435	5007	-354	4653			
	23	4647	4851	4851	4863	4869	4867	4869	4828	4804	4782	4746	4737	4694	4596	4688	4911	5230	5114	4846	4475	4443	4443	4654	4717	4772	-344	4428			
	24	4763	4763	4746	4702	4653	4666	4684	4676	4684																					
	25													4634	4570	4587	4570	4542	4653	4829	4873	4887	4668	4321	3984	4023	3646	4063	4549	-378	4171
	26	4419	4665	4665	4636	4601	4599	4601	4570	4556	4563	4556	4547	4504	4424	4607	4635	4955	5196	5064	5011	5071	4572	4577	4844	4685	-454	4231			
	27	4912	4805	4936	4804	4666	4670	4679	4671	4679	4662	4631	4558	4451	4652	4514	4458	4670	4867	5085	5433	5050	4840	5238	5200	4797	-494	4303			
	28	4809	4491	4885	4832	4773	4727	4686	4674	4679	4660	4627	4636	4610	4509	4459	4357	4357	4123	3874	4007	3803	4764	3574	3491	4434	-451	3983			
	29	4055	4710	4774	4777	4774	4630	4491	4425	4376	4383	4376	4535	4660	4421	4444	4510	4622	4139	3973	3791	3564	4042	4361	4564	4392	-429	3963			
	30	4979	4895	4704	4632	4555	4471	4392	4384	4392	4391	4376	4393	4376	4367	4454	4631	4804	4910	4871	4805	4490	4267	3985	3614	4506	-339	4167			
Means.....		5163	5220	5222	5185	5142	5113	5089	5068	5064	5128	5177	5167	5122	5081	5134	5153	5317	5382	5386	5329	5220	5194	5071	5124	5177					
Temp. Corrections		-611	-604	-596	-587	-583	-572	-566	-557	-550	-545	-542	-534	-529	-519	-515	-513	-517	-524	-5											

VERTICAL FORCE MAGNETOMETER.

AUGUST 1852.

AUGUST 1852

* The numbers in these columns are not observed but interpolated for the sake of obtaining the daily Means, and the small figures heading them are the Corrections of interpolations.

$$k = a \cdot \cot \theta \left(\frac{T}{T'} \right)^2 = 0000291 \times \cot 73^\circ 37' 21'' \times \left(\frac{6.910}{15.120} \right)^2 = 00004541 \quad \frac{q}{k} = \frac{.360}{.045} = 7.927 = 1 \text{ Faht.} \quad \text{Zero } 80.0 \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER.

Göttingen Mean Time.		Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$	
P.M. h.m.																													
Madras Mean Time.		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41				
SEPTEMBER 1852. Vertical Force Magnetometer.					-0.7				-0.1																				
	1	3665	3792	3755	3676	3599	3443	3287	3387	3513	3586	3636	3659	3675	3612	4020	4487	5017	5306	5500	5479	4340	3484	3554	3698	3965	-352	3613	
	2	3876	3986	3849	3860	3873	3792	3712	3703	3720	3732	3720	3731	3734	3655	4148	4762	5286	5720	6528	5678	4752	4490	3931	3573	4242	-430	3812	
	3	3663	3940	4013	3950	3888	3896	3905	3940	4001	4013	4001	3915	3821	3631	3680	5175	4574	5207	5541	5891	4635	4092	3928	4086	4183	-471	3712	
	4	4226	4132	4159	4052	3947	3947	3947	3887	3854																			
	5																												
	6	4031	4031	4102	3986	3872	3854	3836	3804	3799	3678	3534	3667	3793	3793	4014	4822	5303	5273	4215	3833	3624	3045	3201	3541	3944	-585	3359	
	7	3848	3977	3732	3731	3732	3544	3357	3538	3746	3723	3677	3681	3677	3650	3855	4200	4319	4014	3562	3672	3020	3175	3490	3575	3687	-585	3102	
	8	3734	3949	3778	3718	3659	3659	3659	3629	3626	3638	3626	3619	3604	3570	3889	4309	4450	4450	4725	4421	4285	4126	4310	4234	3944	-519	3425	
	9	3827	3713	3618	3617	3618	3604	3591	3341	3117	3286	3431	3498	3557	3390	3738	4400	5279	5751	6069	5963	5423	4270	4436	4038	4107	-468	3639	
	10	3826	3940	3889	3888	3889	3848	3307	3294	3307	3405	3480	3484	3480	3521	3653	4199	4781	5362	5405	4676	3960	3256	2769	2830	3727	-421	3306	
	11	3040	3226	3275	3249	3225	3168	3111	3098	3111																			
	12																												
	13	3539	3632	3422	3449	3478	3305	3132	3203	3301	3273	3222	3207	3184	3160	3440	3810	4248	4451	4589	4486	4095	3465	3158	3331	3566	-305	3261	
	14	3284	3277	3286	3280	3276	3221	3167	3154	3167	3131	3071	3057	3035	2985	3372	3998	4685	5482	6071	6034	5283	4401	3866	3600	3799	-309	3490	
	15	3425	3410	3338	3337	3338	3338	3338	3271	3230	3231	3208	3212	3208	3068	3428	4256	4855	5326	6247	5783	5034	4258	3415	3032	3816	-353	3463	
	16	3187	3289	3275	3406	3538	3462	3387	3307	3254	3247	3217	3221	3217	3222	3471	3819	4328	4968	5295	5120	5036	4545	4177	4069	3794	-410	3384	
	17	3653	3613	3859	3858	3859	3566	3274	3357	3467	3402	3314	3318	3314	3171	3437	3719	4045	4438	4545	4420	4087	3765	3595	3397	3686	-446	3240	
	18	3282	3516	3547	3485	3425	3425	3388	3378																				
	19																												
	20	3720	3655	3705	3420	3137	3312	3488	3421	3380	3285	3166	3264	3354	3422	3346	3706	4244	4084	4144	3962	3934	4201	4493	4090	3664	-509	3155	
	21	3784	3348	3492	3491	3492	3471	3451	3360	3295	3320	3321	3325	3321	3284	3518	3717	4046	4356	5145	4908	4406	4540	4045	3709	3756	-515	3241	
	22	3810	3546	3633	3430	3228	3228	3228	3200	3199	3224	3226	3260	3286	3201	3505	3800	4422	4911	5155	4738	4214	3974	3965	3827	3717	-545	3172	
	23	3725	3374	3580	3428	3278	3142	3007	2934	2888	2982	3053	3057	3053	2909	3093	3544	4026	4026	4298	4098	3539	3365	3660	3603	3403	-568	2835	
	24	3411	3469	3160	3185	3212	3212	3212	3149	3113	3119	3101	3166	3224	3049	3093	3488	3963	4532	4636	4299	3891	3587	3366	3150	3449	-560	2889	
	25	3219	3305	3286	3274	3264	3224	3184	3171	3184																			
	26																												
	27	3176	3176	3215	3194	3175	3151	3128	3087	3073	3085	3078	3020	2959	2885	3286	3957	4519	4975	5778	5582	5050	4350	3649	3469	3667	-576	3091	
	28	3399	3350	3263	3210	3159	3107	3056	3031	3033	3045	3033	2940	2839	2935	3384	4231	5052	5529	5549	5320	4635	3985	3375	3169	3651	-553	3098	
	29	3203	3227	3228	3233	3240	3150	3060	3030	3026	3038	3026	3152	3270	3186	3175	3596	3996	4644	5194	4377	3737	3640	4332	3575	3514	-523	2991	
	30	2861	3209	3291	3150	3010	2932	2855	2960	2972	2932	2869	2857	2838	2903	2941	3280	3475	3618	3469	3315	3409	3212	3068	3177	3106	-514	2592	
Means.....		3554	3580	3548	3502	3458	3404	3350	3330	3337	3340	3321	3334	3341	3290	3531	3997	4470	4817	5012	4763	4273	3844	3678	3559	3735			
Temp. Corrections		-521	-507	-501	-494	-490	-485	-485	-478	-476	-470	-467	-458	-454	-439	-432	-434	-438	-450	-458	-475	-491	-503	-518	-526		-477		
Corrected Means..		3033	3073	3047	3008	2968	2919	2865	2852	2861	2870	2854	2876	2887	2851	3099	3563	4032	4367	4554	4288	3782	3341	3160	3033			3258	
Mean Hourly Variations from General Monthly Mean.		225	185	211	250	290	339	393	406	397	388	404	382	371	407	159	-305	-774	-1109	-1296	-1030	-524	-83	98	225				
		1022	0840	0958	1135	1317	1539	1785	1844	1803	1762	1835	1735	1685	1848	0722	-1385	-3515	-5036	-5885	-4677	-2379	-0377	0445	1022			-005885	
SEPTEMBER 1852. Temperature of Vertical Force Magnetometer.					*		*		*		*		*																

$$k = a \cdot \cot \theta \left(\frac{T}{T'} \right)^2 = 0000291 \times \cot 739'03'' \times \left(\frac{6.911}{13.258} \right)^2 = 00005886 \quad \frac{q}{k} = \frac{360}{-059} = 6.116 = 1 \text{ Faht.}$$

Zero 80.0 Ther.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
OCTOBER 1852. Vertical Force Magnetometer.				-11.3	0.8	18.5	-3.6	7.2																					
	1	3017	3044	3159	3127	3117	3039	2960	2919	2841	2815	2797	2804	2797	2749	3125	2791	3268	3566	4017	4088	3996	3761	3407	3104	3180	-398	2782	
	2	2892	2892	3096	2974	2885	2876	2866	2965	3028																			
	3										2929	2837	2761	2671	2671	2721	2947	3429	3905	4302	4081	3687	3816	3829	3582	3193	-409	2784	
	4	2956	2956	2809	2790	2794	2732	2669	2735	2764	2760	2764	2743	2708	2606	2562	2850	3408	3630	3723	3988	4095	3833	3356	3015	3052	-378	2674	
	5	2974	3315	3241	2994	2770	2756	2740	2796	2816	2724	2640	2647	2640	2602	2660	2949	3381	3348	3874	3620	3566	3339	3093	3080	3024	-362	2662	
	6	2935	2817	2817	2733	2672	2681	2688	2722	2719	2715	2719	2693	2653	2692	2625	2769	3379	3272	3247	3060	3221	3221	3140	3306	2896	-346	2550	
	7	3127	2929	2733	2653	2595	2632	2668	2650	2596	2592	2596	2629	2648	2633	2733	2819	3034	3078	3190	3257	3341	3341	3409	3174	2877	-158	2719	
	8	2996	2872	2624	2649	2696	2467	2236	2440	2608	2604	2608	2601	2580	2413	2452	2570	2823	3200	3172	3037	3037	2943	2515	2637	2699	-117	2582	
	9	2637	2692	2653	2613	2596	2597	2596	2635	2638																			
	10										2574	2517	2494	2456	2376	2752	3280	3953	4550	4969	4775	4324	3545	2980	2716	3080	-78	3002	
	11	2528	2556	2641	2622	2626	2559	2490	2490	2453	2432	2419	2374	2315	2315	2468	2710	3354	4220	4481	4224	3955	3192	2888	2810	2880	-165	2715	
	12	2661	2571	2584	2518	2475	2476	2475	2482	2453	2471	2496	2503	2496	2197	2376	2464	2947	3221	3355	3126	2769	2805	2942	2828	2654	-220	2434	
	13	2741	2637	2637	2615	2615	2296	1975	2165	2318	2050	1789	1761	1718	1700	1542	1542	1765	2085	2388	2240	2293	2189	1951	1872	2120	-248	1872	
	14	2003	1879	1881	1824	1790	1791	1790	1844	1861	1808	1762	1727	1677	1584	1695	1799	2073	2219	2303	2407	2568	2568	2455	2261	1982	-271	1711	
	15	2042	1899	1899	1907	1937	1886	1833	1873	1876	1859	1849	1751	1638	1475	1272	1177	1433	1711	2105	2513	3070	3070	2614	2314	1958	-318	1640	
	16	2446	2410	2105	2078	2074	1926	1776	1858	1904																			
	17										1897	1897	1958	2004	1915	2014	2390	2766	3191	3415	3230	3150	2905	2470	2329	2338	-268	2070	
	18	2369	2700	1682	1788	1916	1953	1988	1818	1611	1607	1611	1539	1453	1293	1549	1685	1974	2032	2046	1800	2035	2035	1900	1900	1845	-254	1591	
	19	1819	1555	1473	1425	1400	1401	1400	1504	1571	1531	1499	1454	1395	1234	1370	1820	2092	2340	2353	2064	2154	2496	2545	2297	1758	-180	1578	
	20	2297	1594	1230	1231	1255	1322	1388	1239	1053	1198	1350	1336	1308	1353	1432	1515	1626	1656	1667	1890	2274	2194	2159	2139	1571	-52	1519	
	21	1836	1552	1399	1328	1279	1592	1903	2001	2062	2180	2305	2312	2305	2215	2290	2343	2611	2632	3505	2966	2865	3106	3363	3271	2301	45	2346	
	22	3094	2720	2623	2554	2507	2200	1892	1884	1840	1836	1840	1835	1816	2086	2161	2414	2573	2867	2951	2924	3014	2859	2582	2642	2405	-56	2349	
	23	2480	2403	2321	2269	2240	1853	1465	1604	1706																			
	24										1642	1586	1684	1767	1789	1915	1981	2337	2491	2551	2332	2507	2637	2468	2310	2097	-147	1950	
	25	2159	1844	1844	1833	1844	1855	1865	1810	1719	1701	1690	1697	1690	1661	1620	1731	2088	2258	2175	1911	1981	2143	2143	2164	1893	-185	1708	
	26	2054	1790	1821	1830	1862	1863	1862	1902	1906	1877	1856	1823	1775	1716	1754	1833	2251	2647	2725	2507	2368	2114	2035	2095	2011	-207	1804	
	27	2095	2099	2054	2182	2333	2260	2185	2113	2005	1921	1845	1813	1766	1766	1721	1680	2022	2160	2161	2085	2119	2227	2175	2228	2042	-225	1817	
	28	2228	2211	2165	2170	2197	2198	2197	2174	2114	2095	2083	2009	1921	1904	1966	2087	2455	2698	2709	2604	2660	2449	2571	2499	2265	-226	2039	
	29	2402	2300	2240	2284	2350	2312	2272	2286	2263	2234	2213	2199	2171	2167	2368	2300	2396	2816	3060	3375	3587	2987	2671	2537	2491	-230	2261	
	30	2360	2215	2231	2282	2356	2276	2195	2198	2165																			
	31										2183	2209	2202	2181	2251	1025	2248	1817	2470	2554	2803	3363	3004	3004	2546	2339	-175	2164	

$$k = a \cdot \cot. \theta \left(\frac{T}{T'} \right) = 0000291 \times \cot. 738'15'' \times \left(\frac{6.912}{11.920} \right)^2 = 00007297 \quad \frac{q}{k} = \frac{360}{.073} = \frac{\text{sec.}}{.073} = 4934 = 1 \text{ Faht.} \quad \text{Zero } 80.0 \text{ Ther.}$$

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.	P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41				
NOVEMBER 1852. Vertical Force Magnetometer.				-6.2		-9.8		-10.2		-7.8		19.1																
	1	1950	1518	1328	1395	1474	1321	1188	1234	1301	1249	1213	1299	1347	1057	1156	1186	1633	1802	2455	2608	2431	2394	1926	1729	1591	-88	1503
	2	1626	1509	1499	1439	1392	1382	1392	1407	1442	1434	1442	1481	1481	1366	1340	1279	1380	1843	2073	2472	2540	2475	2370	2095	1673	-127	1546
	3	1799	1795	1891	1842	1806	1711	1635	1868	2122	1941	1776	1770	1726	1656	1545	1611	1650	1819	1752	1614	1665	1987	2013	1909	1788	-98	1690
	4	1883	1865	1841	1808	1788	1778	1788	1739	1710	1675	1655	1621	1549	1427	1719	2237	2397	2692	2676	2779	2779	2384	2147	2062	2000	-71	1929
	5	2062	2199	2178	2172	2178	1987	1815	1844	1894	1693	1508	1753	1959	1784	2009	2165	2333	2587	2686	2884	3027	2628	2689	2606	2193	-46	2147
	6	2218	2206	2156	2064	1985	1930	1894	1884	1894																		
	7										1853	1827	1808	1750	1750	1673	1641	1934	2074	2367	2608	2570	2455	2225	2063	2035	-20	2015
	8	1877	1816	1789	1676	1575	1565	1575	1514	1474	1462	1466	1485	1466	1400	1376	1304	1366	1458	1512	1626	1752	1851	1795	1750	1580	-15	1565
	9	1750	1770	1763	1743	1735	1725	1735	1713	1711	1703	1711	1731	1712	1745	1772	1702	1750	1750	1823	1858	1783	1760	1760	1828	1751	-7	1744
	10	1739	1666	1664	1655	1659	1649	1659	1616	1593	1585	1593	1601	1571	1543	1586	1570	2913	2770	2953	3142	3213	3552	3579	3275	2139	-30	2109
	11	3275	3220	3136	3130	3136	3177	3238	3128	3039	2877	2731	2931	3092	3126	3203	3389	3322	3494	3295	3691	4590	4110	3953	3445	3322	-64	3258
	12	3396	3436	3151	3009	2880	2982	3104	3094	3104	3077	3065	3060	3016	3016	2910	2961	3190	3595	4046	3801	3656	3656	3957	3555	3280	-88	3192
	13	3040	3278	3201	3195	3202	3121	3060	3050	3060																		
	14										2951	2857	2856	2816	2639	2547	2383	2564	2893	3398	3681	3909	3785	3457	3229	3091	-45	3046
	15	3372	2834	3095	2824	2565	2617	2689	2809	2949	2941	2949	2900	2813	2746	2594	2516	2661	2905	3219	3717	3871	3966	3707	3495	3031	-27	3004
	16	3274	3123	3106	3056	3019	3032	3064	3054	3064	3056	3064	3029	2956	2930	2921	3019	3190	3342	3286	3320	3537	3592	3650	3262	3164	-15	3149
	17	3129	3082	2958	3027	3109	3042	2994	3037	3101	3023	2961	2952	2904	2863	2863	2769	2780	2926	3195	3516	3567	3487	3161	3161	3067	-23	3044
	18	3273	3154	3154	2986	2830	2797	2783	2818	2874	2832	2805	2824	2805	2672	2754	2838	3007	3406	4108	4383	4210	3915	3530	3133	3162	-16	3146
	19	3133	3064	3064	3058	3064	3044	3044	3034	3044	3036	3044	2972	2861	2760	2789	2835	3114	3522	3957	4083	4120	3861	3550	3263	3222	-12	3210
	20	3093	3133	3138	3071	3017	3007	3017	2970	2944																		
	21										2939	2910	2929	2910	2787	2832	2864	2994	3210	3429	3694	3613	3487	3261	3132	3099	-15	3084
	22	3173	3106	3119	3098	3089	3079	3089	3074	3080	3024	2984	3003	2984	2917	2914	3001	3261	3629	3739	3511	3395	3293	3121	3121	3159	-26	3133
	23	3069	3045	3045	3097	3161	3089	3036	3026	3036	2988	2956	2975	2956	2986	2904	3019	3397	3727	3879	3988	3904	3667	3493	3297	3239	-20	3219
	24	3277	3230	3240	3213	3199	3189	3199	3189	3199	3122	3061	3080	3061	2975	2975	2929	3192	3587	3840	3889	3700	3310	3212	3303	3257	-17	3240
	25	3350	3335	3285	3279	3285	3248	3231	3221	3231	3223	3231	3214	3159	3159	3083	3144	3186	3422	3712	3862	4111	4059	3870	3652	3398	-28	3370
	26	3430	3430	3431	3425	3431	3452	3492	3482	3492	3421	3366	3310	3216	3302	3407	3445	3597	3824	3626	3601	3765	3986	3927	3730	3525	-28	3497
	27	3536	3565	3590	3455	3333	3415	3517	3471	3446																		
	28										3404	3377	3396	3377	3340	3334	3267	3383	3621	3861	3825	3910	3910	3810	3727	3536	-30	3506
	29	3594	3496	3496	3490	3496	3489	3501	3445	3410	3402	3410	3369	3289	3330	3247	3130	2965	2932	3036	2950	2899	3051	3436	3675	3314	-8	3306
	30	3565	3437	3371	3365	3371	3318	3285	3275	3285	3212	3154	3132	3072	3072	3000	3084	3048	2887	2931	2734	2223	2813	3793	3793	3176	-9	3167
Means.....	2803	2743	2719	2676	2645	2621	2616	2615	2635	2582	2543	2557	2533	2475	2479	2511	2700	2912	3110	3225	3259	3209	3130	2973		2761		
Temp. Corrections.	-61	-50	-47	-44	-43	-40	-39	-36	-35	-31	-28	-24	-22	-17	-16	-16	-21	-26	-33	-42	-49	-55						

Zero 80.0 Ther.

VERTICAL FORCE MAGNETOMETER.

Vertical Force Magnetometer.

Temperature of Vertical Force Magnetometer.

* The numbers in these Columns are not observed but interpolated for the sake of obtaining the daily Means, and the small figures heading them are the Corrections of interpolations.

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 21st JANUARY 1852, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		WEDNESDAY, 21st JANUARY, 1852.													THURSDAY, 22d JANUARY, 1852.											
		p.m.																								
		10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9	
DECLINATIONS.	m.	0	5	10	15	20	25	30	35	40	45	50	55	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	s.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	scd.	1658	1650	1640	1631	1628	1623	1639	1663	1670	1671	1679	1674	1672	1675	1670	1660	1666	1674	1694	1670	1684	1670	1668	1673	
	scd.	57	50	40	29	28	26	43	66	74	71	78	73	72	75	70	60	67	77	92	69	82	71	68	70	
	scd.	57	50	40	28	27	26	44	70	71	71	79	75	72	76	69	59	66	79	90	69	81	72	68	68	
	scd.	56	50	39	26	27	25	46	70	70	75	79	74	72	77	68	58	66	82	88	70	81	74	68	67	
	scd.	55	48	39	26	27	24	49	70	70	75	78	74	70	77	66	58	68	86	84	71	80	72	69	67	
	scd.	55	47	38	27	27	24	52	70	70	78	77	73	70	77	64	56	70	89	81	75	80	71	69	66	
	scd.	54	45	36	29	27	30	54	70	70	78	76	72	70	76	62	54	69	94	78	81	80	71	69	64	
	scd.	54	45	34	30	25	32	56	70	70	78	74	71	71	76	60	54	67	96	76	85	80	71	69	62	
	scd.	53	45	34	30	25	32	57	70	70	79	74	70	72	75	60	56	68	99	74	87	78	70	70	62	
	scd.	51	43	33	30	20	32	60	70	70	79	74	70	72	75	61	60	69	1701	73	89	78	70	71	62	
	scd.	51	42	32	30	23	34	63	71	70	79	75	70	74	75	60	62	69	01	72	90	75	69	71	61	
	scd.	51	42	32	30	23	34	62	70	71	79	75	70	75	73	60	62	70	1698	72	90	72	69	71	60	
	HORIZONTAL FORCE.	2	1152	1145	1135	1145	1090	1068	1018	968	902	949	935	975	1039	1094	1108	1110	1052	1192	1364	1544	1460	1339	1358	1329
7		52	42	35	42	90	67	10	53	42	43	42	78	52	96	09	14	54	1204	62	59	42	37	56	27	
12		52	40	35	40	82	66	10	36	78	40	38	83	60	98	10	10	56	13	81	69	34	33	53	20	
17		55	40	35	36	85	62	11	40	82	37	42	93	64	1100	12	07	59	81	97	84	36	30	50	17	
22		55	37	34	30	85	61	12	54	81	35	46	1000	70	02	10	05	64	1312	1431	99	37	30	47	14	
27		57	37	36	27	85	61	10	58	76	31	52	04	74	04	12	1080	70	60	67	1601	30	30	44	09	
32		57	35	38	22	85	47	08	50	83	30	70	11	74	06	10	70	76	96	69	1570	20	33	40	06	
37		57	31	40	14	77	40	04	35	73	35	89	18	80	08	07	60	79	70	71	26	12	36	36	04	
42		57	30	41	10	65	37	00	25	73	40	92	23	88	10	04	54	1134	68	86	01	09	39	30	00	
47		53	32	42	07	60	36	05	17	58	40	79	34	90	16	06	50	51	64	89	1492	1390	42	26	1298	
52		50	32	42	05	64	30	10	14	59	40	73	43	84	10	08	50	60	70	1509	90	79	46	27	96	
57		47	32	44	02	64	23	980	898	50	39	77	49	90	04	06	50	71	71	43	70	50	51	27	94	
Faht...																										
Attached Thermometer...			78.8	79.0	79.0	79.0	78.7	78.4	78.4	78.6	78.8	79.0	79.1	79.3	79.6	79.8	79.7	79.7	79.7	79.9	79.9	79.9	79.9	80.0	80.0	80.0
VERTICAL FORCE.		m.	3	8	7	13	18	23	28	33	38	43	48	53	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	s.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	scd.	4268	4210	4175	4175	4202	4169	4300	4580	4614	4522	4642	4705	4617	4433	4373	4355	4266	4471	4529	4659	4346	4157	4254	4254	
	scd.	68	10	75	75	02	69	00	80	4533	55	18	4652	00	33	73	55	66	98	29	59	46	57	54	54	
	scd.	68	4198	75	75	02	69	20	4600	11	52	40	85	00	34	73	55	66	4568	29	59	01	57	54	54	
	scd.	68	98	75	75	02	69	40	00	4477	74	35	87	00	34	73	22	66	4629	49	90	4272	57	54	54	
	scd.	68	98	75	75	02	69	95	00	75	78	27	80	4524	34	73	22	93	71	75	4731	4313	57	54	54	
	scd.	50	98	75	88	02	69	95	00	65	66	48	70	24	34	73	22	93	4719	4612	62	13	57	54	54	
	scd.	50	85	75	88	02	4218	4420	4595	76	56	50	60	4684	34	70	22	93	4801	49	98	13	3950	54	30	
	scd.	50	85	75	88	4162	18	35	95	4511	74	66	73	84	05	70	22	93	65	52	04	13	50	54	30	
	scd.	50	85	75	88	40	18	46	95	02	89	88	61	84	05	70	4222	4416	14	52	4613	13	50	54	30	
	scd.	39	85	75	88	40	18	46	95	02	91	4702	45	84	05	70	22	49	4760	79	07	13	4100	54	30	
	scd.	39	85	75	88	40	67	46	4607	24	4601	02	24	4466	05	70	22	49	03	91	4451	00	00	54	30	
	scd.	39	85	75	88	40	67	4543	07	17	04	4689	24	66	05	70	22	49	4612	97	30	00	00	54	30	
	Faht...																									
Attached Thermometer...		78.8	78.7	78.6	78.5	78.4	78.2	78.4	78.6	79.2	79.5	79.6	79.8	79.8	80.0	79.9	79.8	79.7	79.8	79.8	79.8	79.8	79.8	79		

COMMENCING AT 10 P. M. OF 27TH FEBRUARY 1852, GOTTINGEN MEAN TIME.

		FRIDAY, 27TH FEBRUARY, 1852.														SATURDAY, 28TH FEBRUARY, 1852.									
Gottingen Mean Time.		p. m.														Noon									
		10	11	12	13	14	15	16	17	18	19	20	21	22	23	1	2	3	4	5	6	7	8	9	
DECLINATION.	m.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	
	0	1643	1652	1640	1642	1643	1642	1643	1645	1643	1643	1640	1643	1645	1644	1646	1643	1633	1636	1639	1637	1635	1636	1637	
	5	43	52	40	42	43	42	44	41	44	43	45	49	46	44	47	43	33	36	38	37	35	35	37	
	10	43	52	40	42	42	46	44	42	43	40	50	48	46	43	47	42	33	36	37	37	35	35	37	
	15	43	52	40	44	40	46	46	48	48	43	50	46	47	42	48	42	34	37	35	37	35	36	37	
	20	43	51	40	47	40	47	44	47	47	43	50	43	47	41	49	41	34	37	34	38	34	36	37	
	25	44	51	40	46	42	48	48	46	44	45	49	40	47	40	49	40	34	37	35	38	34	35	37	
	30	46	51	40	45	47	45	48	44	42	45	45	38	48	40	50	39	35	38	35	38	34	35	35	
	35	47	50	40	48	45	44	49	44	40	44	39	40	49	42	48	37	36	38	36	38	34	35	35	
	40	49	50	40	50	47	45	48	43	40	44	33	43	49	42	47	35	37	38	36	38	34	37	35	
	45	49	47	40	48	47	46	49	44	38	45	34	43	48	42	46	34	36	38	36	37	34	37	35	
	50	50	45	41	48	43	43	48	45	39	46	36	43	48	43	45	34	36	39	36	37	33	37	35	
55	50	43	41	47	41	44	46	44	40	44	40	43	47	43	44	33	36	39	36	36	33	37	35		
HORIZONTAL FORCE.	m.	1238	1320	1330	1308	1292	1204	1193	1108	1144	1203	1200	1255	1248	1255	1295	1272	1280	1307	1258	1300	1307	1275	1230	
	2	42	21	28	05	90	03	85	1031	58	32	23	74	50	60	97	70	80	09	61	02	08	70	28	
	7	50	24	25	03	87	18	80	40	63	05	41	71	53	64	92	68	82	12	60	09	08	70	30	
	12	57	27	22	07	84	38	78	88	67	06	52	65	60	72	88	65	82	21	60	13	1296	62	30	
	17	65	28	20	10	84	39	78	1113	81	00	63	63	58	80	85	67	84	24	60	21	90	65	24	
	22	72	29	19	08	78	38	78	12	59	37	60	66	56	85	87	69	89	27	64	24	89	59	20	
	27	88	31	16	04	72	39	71	1096	41	40	53	67	52	91	89	70	90	24	74	24	86	53	15	
	32	99	32	13	07	69	12	59	1109	39	16	23	55	52	94	90	75	90	19	79	20	80	50	18	
	37	1304	34	10	09	62	08	58	1094	40	1194	15	56	55	92	90	79	96	1293	81	12	84	45	12	
	42	10	34	10	02	49	1199	53	1150	49	1204	24	58	57	92	92	80	98	90	89	09	88	40	10	
	47	19	33	09	1290	20	98	50	79	89	29	35	57	59	94	87	80	1300	61	90	06	83	35	1200	
	52	20	30	09	92	08	93	37	72	82	29	38	55	52	97	80	82	06	52	99	04	80	30	00	
57	81.0	81.1	81.1	81.1	80.9	80.5	80.7	80.9	81.2	81.5	81.7	82.0	82.2	82.2	82.3	82.2	82.1	82.2	82.2	82.1	82.0	82.0	81.8	81.5	
VERTICAL FORCE.	m.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	
	3	4463	4722	4500	4524	4486	4595	4677	4907	5013	4582	4330	4032	4391	4629	4644	4479	4436	4466	4238	4426	4342	4257	4314	
	8	4564	22	00	24	86	95	4709	77	13	4402	4215	4117	4422	29	62	79	36	66	38	26	42	57	14	
	13	64	22	00	24	86	4624	34	5021	4986	4382	4130	15	47	29	83	79	36	66	38	26	42	57	14	
	18	64	22	00	24	4516	83	43	4994	52	40	4088	10	60	57	83	79	36	91	49	26	29	57	14	
	23	64	22	00	24	16	83	43	04	4891	4535	20	44	82	57	83	50	36	4502	61	51	96	72	14	
	28	64	4673	00	24	82	15	59	04	84	00	46	75	82	57	60	50	36	05	4319	64	96	72	14	
	33	4624	73	00	24	94	95	87	5090	90	4275	80	4225	82	57	44	18	36	05	78	64	96	72	14	
	38	24	73	00	24	85	00	4830	61	65	4410	4176	65	97	84	20	18	23	4470	4401	64	4314	72	00	
	43	24	73	00	24	36	11	4785	4966	4797	85	89	65	97	84	20	18	23	17	09	64	14	60	00	
	48	24	00	00	24	82	33	4822	05	65	32	4290	33	4550	84	20	18	23	4370	09	20	14	60	00	
	53	4722	00	24	4496	90	34	22	05	4627	4333	79	50	77	84	95	18	23	4261	09	01	14	60	00	
58	22	00	24	96	60	36	22	44	14	07	35	50	83	84	59	18	37	24	4397	4397	14	60	00		
INDUCTION INCLINO-METER.	m.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	
	0	1635	1646	1633	1633	1633	1632	1633	1633	1634	1633	1630	1633	1634	1632	1633	1630	1624	1627	1630	1629	1627	1630	1630	
	5	35	45	33	33	33	32	33	31	34	34	35	37	34	31	33	30	24	27	30	29	27	29	30	
	10	36	45	33	33	32	32	33	31	34	32	37	37	34	31	34	30	24	27	29	29	27	29	30	
	15	36	45	33	34	30	33	33	33	38	33	40	35	34	30	34	30	24	28	28	29	27	29	30	
	20	38	44	32	35	30	37	33	34	37	33	40	33	34	30	34	29	24	28	27	30	27	29	30	
	25	38	44	32	35	32	37	34	32	33	35	39	30	35	30	35	29	25	28	28	30	27	27	30	
	30	40	44	32	36	33	33	33	31	32	35	35	30	35	30	35	28	26	29	28	30	28	27	28	
	35	42	44	32	37	32	33	38	31	30	33	30	30	35	30	34	27	26	29	29	30	28	27	28	
	40	42	43	32	38	32	35	38	31	30	34	26	33	36	30	33	25	27	29	29	30	28	28	28	
	45	44	41	32	36	33	32	38	32	30	35	27	34	36	30	33	24	27	29	29	29	28	28	28	
	50	44	40	33	35	33	32	35	34	32	36	29	33	36	31	32	24	27	30	29	29	27	28	28	
55	45	36	33	35	32	33	34	34	30	33	30	33	34	32	31	24	27	30	29	28	27	29	28		
METEOROLOGICAL OBSERVATIONS.	Barometer (uncorrected)= 29.0 + ..		1.020	1.016	1.024	1.032	1.055	1.034	1.106	1.122	1.108	1.096	1.064	1.038	1.030	1.018	1.016	1.025	1.034	1.057	1.076	1.081	1.082	1.060	
	Attached Thermometer.....		77.0	77.0	77.0	76.0	75.0	75.0	77.0	79.0	80.5	82.5	83.0	83.5	83.5	83.0	82.5	81.5	80.0	80.0	79.5	78.5	78.5	77.0	
	Dry Thermometer (standard).....		73.5	72.4	71.7	71.5	71.4	74.2	79.2	82.6	85.6	87.4	87.5	87.5	87.0	86.2	85.0	83.0	80.8	79.6	78.3	77.8	77.1	75.3	
	Wet Do.		70.4	70.0	69.6	69.0	69.0	72.7	75.1	75.8	75.2	78.0	78.0	77.5	77.7	77.0	77.0	76.0	75.5	75.2	74.6	74.0	73.5	71.8	
	Cloudy sky in 8ths.....		1	1	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	WIND. Force lbs.....		.00	.00	.00	.00	.00	.00	.05	.05	.05	.07	.10	.10	.15	.12	.15	.07	.05	.00	.00	.00	.00	.00	
	Directions		247	236	236	225	180	180	191	191	146	124	135	135	135	135	146	146	146	146	146	146	146	247	
	REMARKS ON THE WEATHER		cu, cr-st-hor.....	do	do	do	do	do	cr, cr-st, hz.....	cr-st	Nearly-clear.....	do	do	do	do	clear.....	do	do	do	do	do	do	do	do	

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 24TH MARCH 1852, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. OF 24TH MARCH 1852, GOTTINGEN MEAN TIME.																									
		WEDNESDAY, 24TH MARCH, 1852.													THURSDAY, 25TH MARCH, 1852.												
Gottingen Mean Time.		p.m. 10 11 12 13 14 15 16 17 18 19 20 21 22 23													Noon 1 2 3 4 5 6 7 8 9												
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	sed. 1638	sed. 1634	sed. 1630	sed. 1630	sed. 1640	sed. 1649	sed. 1653	sed. 1659	sed. 1644	sed. 1635	sed. 1637	sed. 1641	sed. 1642	sed. 1638	sed. 1632	sed. 1628	sed. 1628	sed. 1628	sed. 1628	sed. 1529	sed. 1631	sed. 1630	sed. 1635	sed. 1636	
		0	38	33	30	30	41	49	54	59	41	35	38	41	42	38	32	28	28	28	28	29	31	30	35	36	
		5	37	32	30	30	42	49	54	59	41	35	37	41	42	37	32	28	28	28	28	29	31	30	35	36	
		10	37	32	30	30	42	50	55	58	41	34	38	42	42	37	32	28	28	28	28	29	31	32	35	36	
		15	37	31	31	32	42	51	56	56	40	35	38	42	42	36	32	28	28	28	28	29	31	34	35	37	
		20	38	31	30	33	43	51	56	54	40	35	38	41	42	34	31	29	28	28	28	29	32	35	34	37	
		25	38	32	30	35	44	52	57	53	38	35	39	40	42	33	31	28	28	28	28	29	32	35	34	37	
		30	37	31	30	36	44	52	58	52	39	36	39	40	39	33	30	28	28	28	29	31	36	34	37		
		35	36	30	30	37	47	52	59	52	39	37	39	40	38	33	29	28	28	28	29	31	36	34	37		
		40	35	30	31	39	48	52	59	51	38	37	40	41	38	32	29	28	28	28	29	30	30	36	35	37	
		45	35	30	31	39	48	52	60	50	37	37	40	41	38	32	29	28	29	28	29	30	30	36	35	37	
		50	35	30	31	39	48	52	60	50	37	37	40	41	38	32	29	28	29	28	29	30	30	36	35	37	
		55	35	30	31	39	49	52	60	48	36	37	40	42	38	32	29	28	29	28	29	31	30	37	35	37	
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	1246	1244	1252	1258	1224	1162	1087	1025	998	1017	1099	1172	1226	1251	1248	1243	1252	1262	1273	1272	1281	1280	1284	1283	
		2	46	40	52	58	20	58	80	18	997	21	1101	77	23	51	48	43	53	62	73	72	81	80	84	83	
		7	40	48	54	55	12	52	74	17	995	25	10	81	30	52	48	43	55	62	73	72	81	81	83	84	
		12	48	50	52	50	10	48	70	13	996	31	23	87	35	52	49	44	57	64	74	72	82	81	83	84	
		17	50	50	52	46	08	40	65	10	997	42	28	94	39	52	49	45	56	64	72	72	82	81	83	84	
		22	46	48	54	40	02	36	60	07	999	48	30	1200	41	51	48	46	55	67	72	72	80	81	82	84	
		27	40	48	54	40	1108	28	54	03	1003	49	33	01	43	50	48	47	57	67	73	72	80	81	82	82	
		32	38	50	54	40	92	25	49	00	03	58	40	09	47	50	47	48	58	69	72	76	79	81	82	82	
		37	40	50	50	40	87	20	43	00	05	70	45	11	49	50	47	48	59	72	72	76	77	81	82	82	
		42	44	50	50	32	80	14	38	999	10	83	51	15	49	49	47	48	60	73	71	78	77	81	82	81	
		47	42	50	54	30	72	12	32	93	13	80	58	20	50	49	44	49	60	74	71	79	76	82	82	81	
		52	40	48	54	30	70	1099	28	97	14	97	64	22	51	48	45	49	61	74	71	80	78	82	82	81	
		57																									
	Faht. Attached Thermometer...		83.0	83.0	83.4	83.4	83.2	83.0	83.1	83.3	83.5	83.7	84.0	84.0	84.3	84.4	84.3	84.2	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	sed. 4207	sed. 4224	sed. 4173	sed. 4184	sed. 4166	sed. 4214	sed. 4258	sed. 4328	sed. 4450	sed. 4512	sed. 4422	sed. 4336	sed. 4276	sed. 4276	sed. 4271	sed. 4268	sed. 4282	sed. 4280	sed. 4271	sed. 4258	sed. 4253	sed. 4283	sed. 4253	sed. 4253	
		3	07	24	73	84	66	14	58	51	50	4454	12	18	76	76	71	68	82	80	71	58	53	83	53	53	
		8	07	24	73	84	66	14	58	4409	45	66	07	30	76	76	71	68	82	80	71	58	53	83	53	53	
		13	07	4155	73	84	66	14	4306	09	46	55	4397	07	76	76	71	68	82	80	71	60	53	71	53	53	
		18	07	55	94	56	66	14	06	09	63	50	37	4298	76	77	71	68	82	80	71	60	41	71	53	53	
		23	07	55	94	56	66	20	28	22	55	44	80	90	76	78	71	68	82	80	71	60	41	50	53	53	
		28	07	55	94	56	66	20	28	22	55	44	80	90	76	78	71	68	82	80	71	60	41	50	53	53	
		33	07	55	94	56	4205	62	12	22	62	40	34	87	76	78	71	68	82	80	71	46	41	50	53	53	
		38	34	4202	94	56	05	62	12	12	56	54	78	78	76	78	71	68	82	84	64	46	41	42	53	53	
		43	29	02	94	56	20	62	22	12	65	41	65	77	76	78	71	68	82	84	64	40	41	42	53	53	
		48	29	02	94	81	20	62	22	12	58	30	58	73	76	78	71	68	82	84	58	40	41	32	53	53	
		53	29	02	94	81	20	35	28	12	58	30	46	70	76	78	71	68	82	84	58	40	41	32	53	53	
		58	29	02	94	81	20	95	28	12	67	23	42	70	76	78	71	68	80	84	58	40	41	32	53	53	
	Faht. Attached Thermometer...		83.0	83.0	83.0	82.8	82.6	82.6	82.9	83.3	83.5	83.5	84.0	84.1	84.4	84.5	84.5	84.4	83.9	83.7	83.7	83.7	83.6	83.5	83.5	83.4	
METEOROLOGICAL OBSERVATIONS.	INDUCTION INCLINO-METER.	m. s.	sed. 1615	sed.																							

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 21st APRIL 1852, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,			COMMENCING AT 10 P. M. OF 21st APRIL 1852, GOTTINGEN MEAN TIME.																										
Gottingen Mean Time.			WEDNESDAY, 21st APRIL, 1852.														THURSDAY, 22d APRIL, 1852.												
			p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon.	1	2	3	4	5	6	7	8	9		
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.		
	0	0	1668	1662	1670	1670	1674	1671	1660	1638	1613	1605	1607	1602	1615	1630	1642	1651	1649	1647	1643	1645	1646	1647	1650	1653			
	5	0	67	62	71	70	72	72	60	34	13	06	07	02	13	30	45	52	47	47	43	45	46	48	50	53			
	10	0	67	62	72	70	71	72	58	32	12	06	07	03	14	30	47	53	49	47	43	45	46	49	50	52			
	15	0	66	62	72	70	72	71	57	31	11	06	07	03	17	32	48	52	49	46	42	45	46	50	50	51			
	20	0	66	62	71	71	72	70	57	30	10	06	08	05	18	35	50	52	50	45	43	46	46	50	50	50			
	25	0	66	64	70	71	75	70	52	26	09	06	08	07	20	38	50	51	50	44	43	46	46	50	51	52			
	30	0	64	65	70	71	72	67	51	22	07	06	07	08	20	40	50	52	48	43	43	46	46	50	52	53			
	35	0	64	65	71	72	72	66	50	21	07	06	06	10	20	40	50	51	48	43	43	46	46	50	52	54			
	40	0	64	66	71	75	73	66	47	20	06	05	05	10	20	40	50	51	47	42	43	46	45	50	53	56			
45	0	64	67	72	78	73	65	44	17	05	05	04	12	23	40	50	50	46	42	43	47	45	50	53	56				
50	0	64	68	72	78	72	65	41	16	05	05	02	12	26	40	49	49	45	42	45	47	45	50	53	57				
55	0	63	69	71	75	72	63	39	13	04	06	02	14	29	40	49	49	45	42	46	48	45	50	53	58				
HORIZONTAL FORCE.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.			
	2	0	1510	1544	1538	1544	1515	1447	1372	1368	1343	1351	1387	1434	1500	1548	1578	1576	1544	1530	1539	1531	1486	1474	1486	1490			
	7	0	17	47	40	46	13	22	80	55	66	65	84	40	18	44	80	76	47	26	39	31	86	70	86	90			
	12	0	22	49	40	50	10	10	96	60	55	61	84	52	28	40	84	74	48	24	39	31	80	70	88	90			
	17	0	29	50	42	50	03	18	1404	57	50	57	90	58	40	40	88	70	48	32	37	31	64	70	94	90			
	22	0	30	51	45	47	1498	18	04	37	40	54	1400	68	40	45	80	60	52	29	37	31	68	69	97	90			
	27	0	30	48	49	51	90	13	00	16	28	53	06	68	30	42	80	50	56	28	38	31	67	69	94	90			
	32	0	34	42	50	55	82	10	00	33	26	52	06	73	32	42	77	46	50	30	38	30	67	72	91	91			
	37	0	36	39	50	35	88	13	00	42	43	65	05	91	28	58	72	46	50	31	30	30	69	76	90	92			
	42	0	38	35	52	20	80	03	1383	34	38	50	06	85	24	50	76	40	50	35	30	30	72	78	93	92			
47	0	38	36	54	10	68	1373	84	40	44	58	24	91	40	59	80	42	38	35	26	11	77	79	94	95				
52	0	36	36	49	10	62	88	57	40	47	72	28	98	42	68	82	45	38	36	30	02	79	81	92	98				
57	0	40	38	42	15	53	1403	62	36	65	80	30	1505	45	72	80	40	38	36	32	1496	79	82	91	1502				
Fahrt...			86.9	86.9	86.9	86.9	86.5	86.2	86.3	86.7	87.2	87.8	88.2	88.5	88.7	88.9	88.8	88.4	88.0	88.0	88.0	87.9	87.9	87.8	87.8	87.7			
Attached Thermometer.....			86.9	86.9	86.9	86.9	86.5	86.2	86.3	86.7	87.2	87.8	88.2	88.5	88.7	88.9	88.8	88.4	88.0	88.0	88.0	87.9	87.9	87.8	87.8	87.7			
VERTICAL FORCE.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.			
	3	0	2791	2970	3050	2851	2818	3205	2798	4224	4322	4476	4447	4282	4301	3550	3325	3407	3019	2883	2887	2824	2655	2746	2836	2885			
	8	0	2817	70	50	70	37	3343	98	75	22	76	47	82	3993	18	25	07	19	83	87	24	55	46	36	85			
	13	0	17	70	42	94	2910	3431	98	4354	75	4520	47	82	93	18	84	67	80	83	87	24	55	46	36	85			
	18	0	50	70	42	2917	72	3359	3870	70	75	20	31	82	4030	18	84	67	80	83	87	24	55	46	36	85			
	23	0	92	70	30	50	3008	3426	3763	4423	4407	45	31	60	59	25	05	3265	80	35	83	39	55	46	3003	85			
	28	0	92	50	02	10	3120	26	3933	87	07	45	33	60	3941	80	05	3148	80	35	83	48	55	46	03	85			
	33	0	92	11	2979	2877	20	26	75	51	46	45	00	77	41	80	3246	3027	2938	41	83	48	55	2820	03	85			
	38	0	2927	11	79	2974	46	76	4027	14	46	46	4395	77	3880	3428	46	10	60	41	83	48	2789	20	2991	85			
	43	0	41	2868	55	3015	50	3522	66	14	61	46	72	07	80	48	46	10	60	41	83	48	89	20	91	85			
48	0	41	61	47	2935	90	3681	4125	4356	61	4492	4445	4189	3765	50	46	2970	41	41	83	30	70	20	91	2988				
53	0	41	2917	02	38	3235	81	62	56	70	92	45	89	65	3325	3330	70	33	2905	83	01	40	20						

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 28TH MAY 1852, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		FRIDAY, 28TH MAY, 1852.														SATURDAY, 29TH MAY, 1852.										
		p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0	0	1651	1650	1655	1670	1683	1685	1670	1644	1616	1599	1598	1610	1622	1638	1650	1650	1639	1632	1632	1638	1640	1641	1645	1647
	5	0	51	51	55	75	85	85	67	40	16	97	1600	11	23	39	50	49	38	32	32	38	40	41	45	47
	10	0	52	52	55	78	85	82	67	39	14	96	00	12	23	39	50	49	37	32	32	38	41	41	45	47
	15	0	52	50	56	79	86	80	64	36	12	95	00	12	23	40	50	49	36	32	32	38	41	41	45	47
	20	0	51	51	59	79	85	80	63	33	10	92	02	12	22	40	51	48	35	33	32	39	41	41	46	46
	25	0	51	53	60	81	85	78	60	30	10	92	04	13	24	41	52	47	34	33	34	39	42	40	46	46
	30	0	50	53	60	82	86	79	57	27	09	93	08	13	26	42	52	45	34	33	36	39	42	41	46	46
	35	0	50	57	61	82	87	78	56	25	07	93	09	17	29	44	52	44	34	33	36	39	42	42	46	46
	40	0	49	55	61	79	87	75	54	23	06	94	10	17	31	45	52	42	34	33	36	39	41	43	46	46
	45	0	50	54	62	81	86	74	50	20	04	96	11	17	32	47	52	42	34	33	37	39	41	43	46	46
	50	0	51	55	65	82	88	72	47	18	01	98	12	20	34	47	51	41	33	33	38	39	41	43	47	47
	55	0	50	54	66	85	87	70	45	17	00	98	12	20	35	48	51	41	33	32	38	39	42	44	47	47
HORIZONTAL FORCE.	m.	s.	1480	1480	1482	1466	1429	1388	1373	1337	1314	1315	1372	1420	1486	1500	1480	1462	1469	1471	1469	1470	1478	1478	1462	1456
	2	0	84	83	82	62	34	82	77	30	20	20	82	29	90	00	80	60	70	71	69	70	78	74	62	56
	7	0	79	88	86	60	32	80	80	30	26	32	87	32	92	00	79	60	70	71	69	70	78	70	62	56
	12	0	78	90	84	58	30	78	70	19	23	45	89	37	92	02	75	59	70	71	69	70	78	69	62	60
	17	0	78	88	82	56	28	94	74	15	20	50	97	39	92	07	77	55	70	71	69	72	78	67	62	60
	22	0	79	82	83	58	20	96	60	15	28	57	1400	49	95	03	79	51	70	71	71	73	82	65	58	62
	27	0	80	84	84	60	15	88	65	17	20	60	11	55	97	1497	80	57	71	71	74	74	82	67	58	62
	32	0	80	90	85	52	14	88	65	15	15	60	08	60	99	95	80	60	72	69	74	78	84	69	58	65
	37	0	80	78	83	54	00	75	55	08	10	60	09	60	1500	95	80	63	72	69	74	79	84	67	58	68
	42	0	80	78	82	51	00	70	40	10	04	62	17	70	00	91	75	67	72	69	74	79	84	60	50	70
	47	0	80	80	80	46	1394	68	50	09	02	70	20	79	00	87	73	67	71	69	72	81	86	58	50	72
	52	0	82	80	75	41	90	72	43	15	09	70	29	84	00	85	71	69	71	69	72	81	85	58	50	72
	57	0	Faht...																							
Attached Thermometer...		89.1	89.3	89.2	89.0	88.9	89.0	89.1	89.4	89.7	90.0	90.7	91.0	91.0	90.9	90.8	90.7	90.6	90.6	90.6	90.5	90.4	90.2	88.9	88.5	
VERTICAL FORCE.	m.	s.	3470	3442	3355	3452	3712	3904	4238	4293	3948	4270	3977	3944	4012	3773	3672	3622	3596	3542	3561	3531	3563	3496	3539	3589
	3	0	3502	31	50	3553	14	04	38	93	21	4160	77	44	12	73	72	22	96	42	72	31	63	96	39	89
	8	0	12	3509	3468	93	24	00	65	33	27	60	77	44	3997	73	72	22	96	42	72	31	63	58	39	89
	13	0	12	3474	00	99	51	00	99	4115	02	60	52	44	50	50	72	22	96	42	72	31	63	58	39	96
	18	0	3474	74	22	78	30	00	99	25	40	00	52	44	50	50	96	22	96	61	72	31	63	58	52	96
	23	0	74	89	22	3659	92	52	4322	4074	40	00	27	94	37	27	96	01	96	61	72	31	63	58	52	96
	28	0	38	28	3376	59	65	72	70	74	40	4024	27	94	37	3669	96	01	96	61	72	31	3640	47	52	3642
	33	0	3398	28	3414	59	37	4025	70	74	4118	24	36	4075	37	40	96	01	96	61	72	31	40	47	52	42
	38	0	3416	3324	62	28	3854	4120	70	38	18	24	3883	75	10	40	96	01	96	61	72	31	40	47	52	42
	43	0	20	3294	66	27	3785	72	70	3989	18	24	83	75	10	01	96	01	96	61	72	31	62	47	65	42
	48	0	10	28	46	90	3825	72	05	89	4270	24	83	75	10	01	96	01	96	61	72	31	62	47	65	42
	53	0	28	3316	20	3726	93	4219	05	20	70	24	83	75	10	01	96	01	96	61	72	31	62	47	65	42
	58	0	Faht...																							
Attached Thermometer...		89.2	89.3	89.0	89.0	88.7	89.0	89.2	89.5	89.7	90.0	90.4	90.6	90.8	90.7	90.7	90.7	90.4	90.1	89.9	89.8	89.7	89.6	89.4	89.1	
INDUCTION INCLINO-METER.	m.	s.	1623	1622	1626	1638	1647	1650	1638	1617	1605	1596	1593	1601	1610	1622	1632	1630	1622	1619	1620	1625	1627	1627	1626	1627
	0	20	23	23	26	41																				

COMMENCING AT 10 P. M. OF 23^D JUNE 1852, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,			COMMENCING AT 10 P. M. OF 23 ^d JUNE 1852, GOTTINGEN MEAN TIME.																										
			WEDNESDAY, 23 RD JUNE, 1852.														THURSDAY, 24 TH JUNE, 1852.												
Göttingen Mean Time.			p. m.														Noon												
			10	11	12	13	14	15	16	17	18	19	20	21	22	23	1	2	3	4	5	6	7	8	9				
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.			
	0	0	1670	1663	1664	1672	1690	1690	1672	1644	1632	1630	1640	1640	1630	1640	1650	1662	1655	1649	1648	1650	1653	1655	1651	1655			
	5	0	70	62	64	72	91	90	71	42	33	31	40	40	30	40	51	62	55	49	48	50	53	55	51	55			
	10	0	69	62	64	73	91	88	70	41	34	32	40	40	31	40	52	62	53	49	48	50	53	55	50	56			
	15	0	68	62	66	76	93	88	70	39	34	35	41	38	31	42	53	62	51	49	48	50	53	53	50	57			
	20	0	68	63	69	79	95	85	68	38	34	35	40	36	32	44	54	62	50	49	49	51	53	53	50	57			
	25	0	68	63	70	79	97	82	65	34	34	36	40	35	34	46	57	60	50	49	49	51	53	54	50	57			
	30	0	66	64	70	80	97	80	61	33	33	38	40	34	35	48	58	60	50	48	49	52	54	54	50	57			
	35	0	66	64	70	83	97	79	59	32	32	39	40	32	36	49	59	60	49	48	49	52	54	54	50	58			
	40	0	65	64	71	86	97	78	53	30	32	39	41	33	37	50	60	60	49	49	49	53	55	54	51	58			
45	0	65	64	71	88	96	74	52	30	31	39	41	31	38	50	60	59	49	49	49	53	55	52	51	58				
50	0	65	64	72	90	96	72	50	30	31	39	40	30	37	49	60	56	49	49	49	53	55	52	53	58				
55	0	64	64	71	90	93	72	48	30	30	40	42	30	39	49	61	55	49	49	49	53	55	52	53	58				
HORIZONTAL FORCE.	m.	s.	1320	1310	1308	1300	1278	1239	1189	1152	1180	1180	1176	1230	1242	1300	1303	1302	1309	1312	1308	1306	1318	1300	1288	1300			
	2	0	20	10	10	02	80	33	84	57	80	75	82	32	49	1299	05	03	06	12	08	10	18	00	88	00			
	7	0	20	10	14	02	72	30	80	62	71	71	86	36	57	1300	06	04	04	12	08	10	18	1297	87	02			
	12	0	18	10	11	02	68	28	73	70	55	69	89	35	64	02	07	07	01	12	08	15	18	97	87	04			
	17	0	18	07	10	1299	60	22	72	68	51	70	92	30	77	03	08	07	02	12	06	16	16	95	87	05			
	22	0	18	05	10	94	60	18	70	56	47	71	97	30	85	04	04	08	09	12	06	16	16	95	85	05			
	27	0	16	04	08	90	52	12	73	53	36	72	1203	33	89	03	03	09	12	11	06	16	15	92	85	05			
	32	0	16	01	05	82	50	08	78	61	40	70	05	37	93	03	02	09	12	11	06	14	14	90	90	06			
	37	0	16	1297	02	78	47	02	68	69	62	72	10	38	93	04	02	10	11	10	06	11	14	90	92	07			
	42	0	15	95	00	76	43	02	60	67	66	73	13	40	98	02	04	10	11	10	06	10	12	90	99	07			
47	0	14	1300	00	76	42	1199	50	68	70	74	21	38	99	02	05	09	11	10	05	10	10	90	99	07				
52	0	14	02	00	79	40	98	50	74	75	75	26	40	98	02	04	08	11	09	05	16	04	90	99	07				
Faht.....			86.3	86.3	86.2	86.2	86.0	85.9	85.8	86.0	86.0	86.1	86.2	86.5	86.7	86.8	86.9	86.9	86.8	86.9	86.9	87.0	87.0	87.0	87.0	86.9			
Attached Thermometer.....			86.3	86.3	86.2	86.2	86.0	85.9	85.8	86.0	86.0	86.1	86.2	86.5	86.7	86.8	86.9	86.9	86.8	86.9	86.9	87.0	87.0	87.0	87.0	86.9			
VERTICAL FORCE.	m.	s.	3555	3485	3455	3369	3455	3580	3538	3686	3735	3697	3962	3952	3821	3911	3706	3570	3580	3538	3560	3568	3587	3515	3532	3557			
	3	0	89	85	55	69	55	80	48	86	35	97	62	52	21	11	06	70	80	38	60	68	87	15	32	57			
	8	0	89	68	55	69	55	96	88	89	3825	99	81	52	21	11	06	70	80	38	60	3600	87	15	32	57			
	13	0	89	68	55	82	98	96	90	80	84	3701	81	52	21	11	06	70	80	38	60	00	87	15	32	29			
	18	0	89	68	73	82	3528	90	3635	3708	3927	16	46	02	21	11	06	70	80	38	60	00	87	15	51	29			
	23	0	99	45	73	3418	28	67	46	25	27	16	46	02	65	11	3635	70	80	38	60	00	87	15	51	29			
	28	0	99	45	73	49	28	60	70	60	58	63	46	3823	65	11	35	70	80	38	60	00	87	07	51	29			
	33	0	99	45	73	49	28	27	59	37	88	3813	37	23	65	3801	35	70	80	38	60	00	87	07	51	29			
	38	0	57	45	51	69	78	30	71	15	3895	13	37	23	65	01	3593	3602	62	38	60	00	62	07	80	00			
	43	0	57	02	51	82	78	28	94	15	55	75	44	23	65	01	93	02	62	38	60	00	62	07	3602	00			
48	0	57	02	24	3500	80	28	3700	15	3776	75	44	3792	65	3790	93	3580	62	38	60	00	30	07	02	00				
53	0	57	02	24	04	95	41	3686	15	24	75	44	92	65	90	93	80	62	49	60	00	30	07	02	00				
58	0	57	02	24	04	95	41	3686	15	24	75	44	92	65	90	93	80	62	49	60	00	30	07	02	00				
Faht.....			86.2	86.2	86.0	86.0	85.9	85.8	85.7	85.9	86.0	86.2	86.3	86.5	86.5	86.7	86.9	87.0	86.8	86.8	86.8	86.7	86.7	86.7	86.7	86.6			
Attached Thermometer.....			86.2	86.2	86.0	86.0	85.9	85.8	85.7	85.9	86.0	86.2	86.3	86.5	86.5	86.7	86.9	87.0	86.8	86.8	86.8	86.7	86.7	86.7	86.7	86.6			
INDUCTION INCLINO-METER.	m.	s.	1629	1626	1623	1630	1643	1645	1632	1611	1601	1602	1612	1615	1606	1612	1622	1632	1625	1620	1618	1620	1623	1622	1624	1625			
	0	20	28	26	22	30	45	43	31	10	02	03	12	13	08	13	23	32	24	20	18	20	23	22	24	25			
	5	20	28	26	22	30	46	42	30	09	03	03	12	11	09	15	24	32	23	20	18	20	23	22	24	25			
	10	20	28	25	22	32	48	42	30	08	04	05	12	10	09	18	24	32	22	20	18	20	23	23	24	25			
	15	20	28	25	27	34	49	41	28	05	03	09	12	10	09	19	25	32	21	20	19	21	23	23	24	25			
	20	20	28	25	28	34	49	40	26	03	02	10	12	10	10	20	27	31	21	20	19	21	23	23	24	25			
	25	20	28	26	29	35	50	38	23	03	02	10	13	10	10	20	28	31	20	19	19	22	22	23	24	25			
	30	20	28	26	29	38	50	38	20	00	03	10	13	09	10	20	29	31	20	19	19	22	22	23	24	25			
	35	20	27	26	30	40	50	33	18	00	02	11	15	09	10	20	29	30	20	19	19	23	22	23	24	25			
	40	20	28	25	30	41	50	33	17	00	03	11	14	09	11	20	30	30	20	19	19	23	22	23	25	25			
45	20	27	24	30	42	49	32	13	00	03	10	15	08	12	20	30	26	20	19	19	23	22	23	25	25				
50	20	27	24	30	42	48	32	12	00	02	11	15	06	12	20	32	25	20	19	19	23	22	23	25	25				
55	20	27	24	30	42	48	32	12	00	02	11	15	06	12	20	32	25	20	19	19	23	22	23	25	25				
Faht..			85.2	85.2	85.0	84.8	84.7	84.8	85.1	85.7	85.9	86.1	86.5	86.9	87.0	87.1	87.0	87.0	86.8	86.7	86.6	86.4	86.3	86.2	86.0	86.0			
Attached Thermometer.....			85.2	85.2	85.0	84.8	84.7	84.8	85.1	85.7	85.9	86.1	86.5	86.9	87.0	87.1	87.0	87.0	86.8	86.7	86.6	86.4	86.3	86.2	86.0	86.0			
METEOROLOGICAL OBSERVATIONS.	Barometer (uncorrected)= 29.0 + ..		In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.			
			0.870	0.864	0.876	0.890	0.916	0.922	0.934	0.938	0.930	0.926	0.910	0.896	0.878	0.865	0.858	0.865	0.881	0.900	0.940	0.956	0.957	0.935	0.924	0.900			
	Attached Thermometer.....		82.5	82.5	82.0	82.0	82.0	82.0	82.5	83.0	84.0	84.5	85.5	86.0	86.0	86.5	86.5	86.0	86.0	86.0	85.0	84.5	84.5	84.0	84.0	83.5			
	Dry Thermometer (standard).....		82.7	82.0	82.2	81.9	82.2	83.2	84.5	86.7	88.6	89.9	90.6	92.4	92.0	92.3	91.8	90.5	88.8	87.5	86.2	85.6	85.2	84.5	83.7	83.2			

MAGNETICAL OBSERVATIONS.		Gottingen Mean Time.		WEDNESDAY, 21ST JULY, 1852.														THURSDAY, 22ND JULY, 1852.									
				p.m.																							
				10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	0	0	1661	1661	1662	1670	1696	1703	1709	1692	1677	1644	1622	1616	1618	1623	1650	1657	1651	1648	1650	1656	1661	1664	1663	1665	
	5	0	60	61	62	74	97	02	09	91	74	44	22	15	17	24	51	58	50	48	50	56	61	64	63	65	
	10	0	60	61	62	76	1700	02	09	91	71	42	20	13	18	27	50	58	50	48	50	56	61	64	64	66	
	15	0	60	61	62	78	01	02	09	90	69	40	21	12	18	29	50	57	50	48	51	57	61	64	64	67	
	20	0	60	62	62	79	01	04	04	85	65	40	20	12	18	31	52	57	49	48	51	58	61	64	64	67	
	25	0	61	62	63	81	00	06	00	87	60	38	20	13	18	32	53	57	49	48	51	58	61	64	64	67	
	30	0	62	62	64	83	00	08	00	86	60	35	20	15	18	33	54	57	49	48	52	59	61	64	65	67	
	35	0	62	62	64	88	02	09	1698	85	55	30	20	15	18	36	56	55	49	48	53	59	61	64	65	67	
	40	0	62	62	66	90	02	10	98	83	52	30	20	13	18	40	56	54	48	48	54	59	62	64	65	67	
45	0	62	62	67	92	03	10	99	81	50	27	20	15	19	41	56	54	48	49	54	59	62	64	65	67		
50	0	62	62	68	92	02	10	98	80	49	24	19	15	20	44	56	52	48	50	54	60	63	64	65	67		
55	0	62	62	69	94	02	10	97	79	48	23	18	17	21	45	55	52	48	50	55	60	63	63	65	67		
HORIZONTAL FORCE.	m.	s.	1226	1224	1225	1227	1216	1155	1108	1050	1047	1053	1067	1060	1078	1110	1154	1162	1168	1179	1178	1172	1171	1170	1159	1165	
	2	0	25	24	25	28	14	52	08	52	48	56	62	61	80	16	54	67	65	79	78	71	71	70	58	64	
	7	0	23	25	25	28	10	49	07	52	50	56	70	63	84	32	57	69	59	79	78	71	71	70	58	62	
	12	0	22	25	23	27	08	47	1099	52	50	55	70	62	88	38	59	69	57	67	79	79	71	69	58	60	
	17	0	22	25	24	27	07	45	95	51	47	59	71	79	92	42	59	67	50	69	79	79	71	68	58	60	
	22	0	22	29	22	23	02	40	92	50	46	65	72	85	98	45	60	67	44	69	79	79	71	68	58	60	
	27	0	22	30	20	21	1195	35	89	50	45	55	69	85	90	50	60	67	42	73	76	77	71	68	59	61	
	32	0	23	29	19	20	90	30	85	50	50	60	60	85	94	48	60	63	40	76	70	77	71	68	59	62	
	37	0	22	28	19	19	85	25	78	47	45	60	61	75	92	49	60	60	42	76	70	77	72	66	60	62	
	42	0	21	27	19	17	78	22	70	47	48	59	61	80	92	50	60	60	43	74	69	77	72	64	61	62	
47	0	24	27	20	17	63	15	72	49	51	66	60	78	1102	50	62	58	61	76	64	77	72	63	62	62		
52	0	25	27	24	17	60	12	68	47	52	69	61	76	09	52	62	58	76	77	64	77	71	61	64	62		
57	0																										
Faht...				87.0	87.0	86.9	86.8	86.5	86.3	86.0	86.2	86.1	86.0	85.5	85.3	85.0	84.8	84.8	84.8	84.8	84.9	84.9	84.9	85.0	85.0	85.0	
Attached Thermometer...																											
VERTICAL FORCE.	m.	s.	5484	5435	5435	5402	5369	4943	5164	5680	5944	5787	5635	5423	5750	5924	6084	5963	5790	5548	5477	4959	5035	5330	4955	4955	
	3	0	84	35	35	02	69	43	64	80	44	72	77	23	50	24	84	63	90	48	77	54	35	30	55	55	
	8	0	84	35	35	02	69	00	64	81	44	72	77	23	5835	24	54	63	90	48	77	54	35	30	55	55	
	13	0	84	35	35	02	69	00	78	5705	41	65	77	5542	35	6034	54	63	79	22	77	5016	35	30	55	55	
	18	0	84	35	35	02	54	05	5369	10	43	65	15	42	64	38	54	51	5533	22	77	16	35	30	55	55	
	23	0	84	35	01	02	44	00	70	5810	60	50	5598	5372	64	38	04	51	12	22	77	16	27	30	55	55	
	28	0	84	35	01	02	38	00	85	17	45	50	03	72	64	49	04	51	12	22	77	21	27	30	55	55	
	33	0	84	35	5368	02	30	15	99	17	5842	50	03	5681	64	49	04	29	12	01	01	43	27	30	55	55	
	38	0	67	35	68	02	12	20	5450	21	57	37	5487	81	50	33	04	29	12	01	5362	43	27	5280	55	55	
	43	0	67	35	68	02	20	01	5595	21	20	37	45	5742	50	33	04	5879	12	08	19	43	5198	80	55	55	
48	0	67	35	68	02	00	4895	5625	68	34	5692	45	75	50	33	18	79	12	08	5261	43	98	80	55	55		
53	0	67	35	68	02	00	4895	5625	68	34	5692	45	75	50	33	18	79	12	08	5261	43	98	80	55	55		
58	0	67	35	68	5380	5107	95	25	68	23	92	24	75	50	39	18	79	12	08	27	43	98	80	55	55		
Faht...				86.8	86.7	86.5	86.3	86.1	86.0	86.0	86.0	86.1	85.9	85.5	85.4	85.2	84.5	84.5	84.5	84.6	84.6	84.5	84.5	84.5	84.5	84.5	
Attached Thermometer...																											
INDUCTION INCLINO-METER.	m.	s.	1620	1620	1620	1625	1641	1649	1650	1642	1628	1601	1585	1582	1580	1585	1607	1612	1609	1606	1608	1613	1617	1618	1620	1620	
	0	20	20	20	20	26	43	49	49	40	25	00	84	80	80	87	08	12	09	06	08	13	17	18	20	20	
	5	20	20	20	20	28	44	49	50	40	21	1599	84	80	80	90	07	12	09	06	08	13	17	18	20	20	
	10	20	20	20	20	29	44	48	50	40	20	98	85	80	80	92	07	12	09	06	09	14	17	18	20	20	
	15	20	20	20	20	29	45	50	47	37	17	98	86	80	80	93	09	10	08	06	09	14	17	18	20	20	
	20	20	20	19	21	30	45	51	46	36	14	95	85	80	80	94	10	10	08	06	09	14	17	18	20	20	
	25	20	20	19	21	32	45	52	46	35	12	94	85	79	80	95	10	10	07	06	10	15	17	18	20	21	
	30	20	20	20	22	33	46	52	45	34	09	92	84	78	80	95	11	10	07	06	11	15	17	18	20	21	
	35	20	20	20	22	33	47	52	47	34	05	90	85	77	80	97	11	10	06	06	11	15	18	18	20	21	
	40	20	20	20	22	34	49	53	48	32	04	90	83	77	80	1600	11	10	06	07	11	15	18	18	20	21	
45	20	20	20	23	34	50	52	46	31	04	88	83	80	82	03	12	10	06	08	11	15	18	18	20	21		
50	20	20	20	24	37	49	52	44	29	03	86	83	80	82	04	10	09	06	08	12	16	18	20	20	21		
55	20																										
Faht...				85.8	85.7	85.2	85.0	84.9	85.0	85.0	85.6	85.3	85.1	83.7	82.7	83.0	83.0	83.0	83.2	83.7	83.8	83.7	83.6	83.6	83.5	83.4	83.6
Attached Thermometer...																											
METEOROLOGICAL OBSERVATIONS.	Barometer (uncorrected) = 29.0 + ...		0.849 0.784 0.806 0.784 0.791 0.801 0.810 0.814 0.822 0.848 0.831 0.838 0.774 0.735														0.730 0.772 0.782 0.804 0.832 0.848 0.858 0.864 0.851 0.829										
	Attached Thermometer.....		83.0 83.0 83.0 81.5 80.5 81.0 81.5 83.0 82.0 79.0 79.0 77.5 77.0 77.0														77.5 79.0 79.0 79.0 79.0 78.5 78.5 78.5 77.5 78.0										
	Dry Thermometer (standard).....		79.2 78.3 78.3 78.3 80.5 83.0 84.0 84.9 82.6 79.1 78.5 77.4 76.8 77.5														79.4 80.5 79.6 79.1 78.8 78.6 78.5 78.5 78.5 78.5										
	Wet Do.		77.0 76.3 76.7 76.7 77.0 79.0 78.8 78.9 78.0 76.5 76.2 75.0 74.0 75.0														76.2 77.6 77.0 76.5 76.4 76.3 76.2 76.4 76.0 76.0										
	Cloudy sky in sths.....		8 8 8 8 7 7 8 8 8 8 8 8 8 8														8 8 8 7 4 5 6 7 8 8										
	Wind	Force	lbs.....	18 20 10 04 06 09 20 24 12 08 06 08 11 15														20 00 08 02 00 00 00 02 03 02									
		Directions	°	225 270 259 270 270 270 304 304 315 202 169 315 146 157														326 337 202 247 270 270 236 259 225 259									
	REMARKS ON THE WEATHER		ovt., fr.-vd.-lg & Th in NE & E., Rain.														overcast.....										
			ovt., fr.-vd.-lg & hy-th, R.....														do.										
			ovt. fr.-lg, Rain.....														do.										
		cu, cir-hz & Nim.....														cu, cu-str, cir-str & Nim											
		do.														do.											
		ovt., Nim.....														ovt., hy-R, Th.....											
		ovt., Rain, lg,																									

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 27TH AUGUST 1852, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		FRIDAY, 27TH AUGUST, 1852.														SATURDAY, 28TH AUGUST, 1852.										
		p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon.	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0	0	1660	1658	1665	1677	1701	1702	1690	1669	1653	1639	1633	1646	1653	1672	1685	1672	1671	1668	1667	1657	1655	1660	1662	1662
	5	0	60	58	65	80	01	02	89	68	53	37	33	47	55	75	83	72	71	68	68	57	55	60	62	64
	10	0	60	58	65	82	01	02	85	66	52	36	35	48	57	78	83	72	70	68	68	57	55	59	62	65
	15	0	60	59	67	83	02	02	82	65	51	36	36	49	60	78	81	74	69	68	68	57	55	59	61	67
	20	0	60	60	68	87	04	00	80	63	50	37	37	50	62	80	82	73	68	66	68	56	57	60	61	68
	25	0	60	60	68	90	05	1698	80	61	50	37	37	51	63	84	80	73	67	66	68	55	58	60	61	68
	30	0	60	61	69	90	05	97	80	60	47	37	37	51	65	86	80	71	67	65	65	54	59	60	61	69
	35	0	60	61	69	92	07	93	79	59	46	37	38	52	66	86	78	70	67	65	63	54	59	61	61	69
	40	0	60	61	70	95	07	93	77	58	45	35	39	51	68	87	78	70	67	65	61	54	60	61	62	70
	45	0	59	62	70	98	06	92	75	55	43	33	41	51	68	86	78	70	67	65	60	54	60	61	62	70
	50	0	59	62	70	1700	03	92	73	53	43	32	42	50	70	87	76	71	67	65	59	54	60	61	61	70
	55	0	58	62	74	01	02	91	72	53	41	32	43	51	73	85	74	71	67	65	58	54	60	61	61	70
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	2	0	1268	1240	1264	1252	1235	1246	1167	1128	1131	1171	1200	1267	1331	1363	1363	1298	1260	1280	1323	1322	1321	1316	1312	1290
	7	0	62	41	63	52	34	47	66	26	23	77	01	70	35	60	66	93	49	81	34	21	21	12	12	90
	12	0	60	42	62	50	32	42	56	25	18	84	02	72	40	57	58	98	45	81	34	21	21	12	12	88
	17	0	57	47	61	48	31	33	56	22	16	80	06	79	42	61	52	97	45	82	40	18	21	12	09	88
	22	0	54	50	60	45	34	17	57	22	15	80	11	81	49	68	42	1300	51	90	39	18	20	15	05	90
	27	0	50	56	60	40	38	05	52	13	18	78	22	85	50	73	32	00	62	98	39	18	20	16	05	92
	32	0	46	58	60	40	39	1195	49	06	25	80	49	92	55	81	24	1294	63	99	40	18	20	16	02	96
	37	0	42	60	60	39	32	86	41	18	16	81	47	99	61	77	17	92	64	1301	24	14	20	19	00	98
	42	0	40	62	59	39	38	87	38	28	18	87	45	1300	56	78	13	90	70	02	20	13	20	20	1297	95
	47	0	39	62	58	39	42	78	36	33	27	99	51	00	63	76	08	91	70	02	20	18	20	20	94	92
	52	0	38	64	53	40	42	70	32	37	50	1200	57	02	66	78	00	90	70	02	20	19	20	20	92	90
	57	0	38	65	53	39	42	66	29	33	62	05	59	17	67	63	1298	75	76	02	18	20	21	20	92	90
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	3	0	3756	3756	3759	3759	4041	4677	4819	5454	5614	6104	5269	5087	4641	4246	4130	3897	3928	3977	3963	3735	3751	3764	3731	3760
	8	0	56	3671	59	59	41	77	19	54	5729	65	69	87	97	4170	30	3935	3832	77	63	35	51	64	31	60
	13	0	56	71	59	59	41	4733	80	5512	29	02	69	87	4781	70	4088	4007	32	77	63	35	51	64	31	60
	18	0	56	71	59	59	41	33	80	12	29	02	69	5115	47	98	88	54	10	77	63	35	51	64	31	60
	23	0	56	71	59	3814	4180	4819	4955	5623	29	02	78	72	18	4317	58	4100	14	61	63	35	51	64	31	60
	28	0	56	3759	59	14	4265	19	5044	23	5850	02	78	5214	18	35	20	28	14	61	63	35	74	40	49	72
	33	0	56	59	59	14	65	65	5105	5715	5986	5917	56	10	18	56	3950	4072	14	61	10	35	74	40	49	72
	38	0	56	59	59	14	4377	65	63	5648	6146	5820	21	4912	12	29	28	72	64	80	3851	35	74	40	49	72
	43	0	56	59	59	14	4407	65	5224	91	80	5663	21	4856	4455	4298	02	60	64	80	3705	35	74	31	49	3699
	48	0	56	59	59	14	10	65	26	48	6219	01	5190	4795	00	98	3860	90	64	80	19	35	3805	31	49	99
	53	0	56	59	59	4008	15	36	5319	48	57	5397	57	4641	4331	45	39	60	64	80	19	35	05	31	49	99
	58	0	56	59	59	08	67	36	5407	85	57	5250	57	95	31	4135	62	08	64	80	19	35	05	31	49	99
METEOROLOGICAL OBSERVATIONS.	INDUCTION INCLINO-METER.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0	20	1612	1610	1615	1625	1642	1642	1635	1621	1609	1595	1592	1602	1607	1623	1633	1622	1625	1621	1620	1611	1611	1612	1614	1615
	5	20	12	10	15	26	42	42	33	20	09	93	93	02	09	25	22	22	24	21	20	11	11	11	14	16
	10	20	12	10	15	27	42	42	32	19	09	92	94	02	10	27	29	22	22	21	20	11	11	11	14	16
	15	20	12	10	16	28	42	42	30	19	09															

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 22^d SEPTEMBER 1852, GOTTINGEN MEAN TIME.

Göttingen Mean Time.		WEDNESDAY, 22ND SEPTEMBER, 1852.														THURSDAY, 23RD SEPTEMBER, 1852.										
		p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	0	0	1644	1640	1640	1641	1662	1670	1661	1650	1639	1620	1620	1622	1642	1651	1650	1648	1645	1645	1641	1643	1643	1641	1642	1650
	5	0	44	40	40	41	64	68	60	50	38	19	18	24	43	51	54	49	45	45	41	43	43	39	44	50
	10	0	45	40	40	41	68	69	60	50	36	19	15	24	46	52	58	45	45	45	41	43	43	39	45	50
	15	0	46	40	40	42	69	68	59	49	37	18	11	27	48	52	60	45	45	45	41	43	43	38	46	50
	20	0	47	40	40	42	70	68	59	50	38	18	11	28	49	52	60	44	45	45	41	43	43	37	47	50
	25	0	47	40	40	48	69	67	58	47	35	20	12	30	48	53	60	42	45	45	42	43	43	36	48	50
	30	0	47	40	40	51	70	65	58	47	32	21	13	30	47	52	60	41	45	45	43	43	44	35	49	50
	35	0	48	40	40	54	70	64	57	44	30	20	13	31	49	50	60	41	46	45	44	43	44	34	50	51
	40	0	48	40	40	59	69	62	55	42	30	21	17	32	50	50	58	42	47	43	44	43	45	36	50	52
	45	0	46	40	40	60	68	62	54	40	25	19	19	35	50	50	58	45	47	42	44	42	44	37	51	52
	50	0	45	40	40	62	70	62	53	40	22	20	21	38	50	50	53	43	46	42	44	42	43	39	51	53
	55	0	43	40	41	62	71	62	52	40	20	20	22	39	51	50	50	44	45	41	44	42	43	40	50	53
HORIZONTAL FORCE.	m. s.	1310	1312	1320	1340	1328	1283	1249	1250	1228	1261	1251	1270	1360	1358	1380	1346	1385	1374	1376	1356	1389	1362	1319	1328	
	2	0	10	14	26	46	24	75	46	37	30	60	60	74	70	54	74	38	90	74	76	56	89	49	22	28
	7	0	10	16	29	50	21	70	42	37	28	58	62	81	75	50	71	40	90	74	76	56	89	37	27	26
	12	0	10	17	30	50	20	72	39	37	40	60	61	98	75	51	65	40	92	74	76	56	92	22	29	25
	17	0	11	20	33	45	18	70	38	35	40	60	56	99	79	54	67	42	83	74	76	50	99	10	30	25
	22	0	11	20	32	40	10	68	37	47	59	56	50	1308	76	56	70	50	82	84	60	50	99	04	30	25
	27	0	09	20	31	29	10	64	37	47	76	52	60	11	80	66	70	56	82	84	54	50	92	1292	31	23
	32	0	06	19	31	30	08	59	35	47	70	52	64	30	68	65	70	67	60	84	65	61	90	89	32	21
	37	0	05	18	32	32	02	63	33	30	75	50	69	36	70	67	70	72	46	83	65	63	87	95	32	24
	42	0	06	19	32	35	1295	69	33	20	81	44	72	42	73	69	70	71	56	83	65	74	80	99	32	26
	47	0	09	20	36	38	90	62	45	18	84	49	72	42	71	73	73	77	57	80	65	79	74	1309	34	29
	52	0	10	20	38	31	87	57	46	18	79	50	75	52	65	79	60	82	61	80	65	79	70	12	30	30
	57	0																								
Faht...		86.8	87.0	87.0	87.0	86.8	86.7	86.7	86.7	86.8	87.0	87.2	87.6	87.8	88.0	88.0	87.6	87.7	87.8	87.8	87.8	87.8	87.8	87.7	87.7	
Attached Thermometer...																										
VERTICAL FORCE.	m. s.	3226	3273	3286	3201	3505	3800	4422	4911	5154	4738	4214	3974	3965	3827	3725	3124	3580	3409	3278	2981	3007	2901	2888	2960	
	3	0	26	73	86	01	72	00	46	11	54	30	4120	74	4005	3789	25	24	80	3369	78	81	07	2820	88	60
	8	0	26	73	86	01	72	26	95	11	54	4602	4068	07	3968	47	25	3347	80	69	78	81	2972	2797	2917	60
	13	0	28	73	86	01	3606	3945	4530	55	00	4480	3959	3880	68	47	3695	47	80	69	78	81	72	56	40	60
	18	0	28	73	86	01	06	45	30	81	00	4300	59	80	32	47	55	90	3485	69	78	81	72	56	88	21
	23	0	28	73	74	36	06	45	4605	81	5046	00	16	3906	32	67	55	3415	85	68	3104	48	72	17	88	21
	28	0	28	73	74	36	06	4122	05	5002	46	00	16	06	32	87	55	55	85	48	3030	48	60	2650	88	21
	33	0	28	73	74	36	20	41	42	02	4988	4209	3891	29	3855	37	55	86	01	48	12	48	60	2595	88	21
	38	0	28	73	74	36	20	41	42	02	4988	4209	3891	29	3855	37	55	86	01	48	12	48	60	2595	88	21
	43	0	28	73	74	3418	20	4203	4708	5120	50	09	91	29	55	37	3585	3612	01	10	95	48	60	95	88	21
	48	0	40	73	74	18	20	03	38	58	25	09	79	37	54	37	56	30	3329	10	60	48	60	2632	88	21
	53	0	40	73	74	18	3730	95	38	58	07	78	3912	25	54	37	00	20	3295	3294	60	48	60	2755	88	21
	58	0	40	73	74	18	30	4347	4844	96	4822	78	50	25	54	37	3492	20	95	94	60	48	60	90	88	21
Faht...		86.5	86.5	86.5	86.2	86.4	86.5	86.6	86.6	86.6	86.9	87.1	87.4	87.6	87.8	87.8	87.6	87.6	87.4	87.4	87.4	87.4	87.4	87.3	87.1	
Attached Thermometer...																										

ABSTRACT OF TERM-DAY OBSERVATIONS,										COMMENCING AT 10 P. M. OF 20TH OCTOBER 1852, GOTTINGEN MEAN TIME.																																							
GOTTINGEN MEAN TIME.										WEDNESDAY, 20TH OCTOBER, 1852.										THURSDAY, 21ST OCTOBER, 1852.																													
										p. m.																																							
										10 11 12 13 14 15 16 17 18 19 20 21 22 23										Noon 1 2 3 4 5 6 7 8 9																													
MAGNETICAL OBSERVATIONS.										DECLINATION.										m. s.																													
																				scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd.										scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd.																			
										0 0										1650 1632 1640 1640 1644 1652 1652 1650 1638 1632 1641 1652 1665 1668										1673 1658 1651 1655 1654 1652 1658 1650 1648 1646																			
										5 0										50 32 40 40 42 52 51 49 37 32 43 55 64 69										73 56 51 55 53 53 58 50 48 46																			
										10 0										49 32 40 41 42 52 50 48 36 34 45 55 63 70										72 55 51 55 53 54 58 50 48 46																			
										15 0										49 30 41 41 42 51 51 47 33 35 45 56 65 72										70 55 51 55 53 54 58 50 49 46																			
										20 0										48 31 42 41 44 52 52 42 30 35 45 57 69 72										70 55 50 55 53 56 58 50 49 46																			
										25 0										48 30 40 42 50 52 51 41 30 35 44 58 66 72										70 52 52 59 53 58 57 50 49 46																			
										30 0										46 30 40 44 50 52 51 40 30 35 45 58 66 72										68 50 52 58 52 58 55 49 48 46																			
										35 0										44 31 40 46 50 53 51 40 30 36 47 59 64 74										65 50 54 58 52 59 53 49 48 46																			
										40 0										42 31 39 48 51 52 50 40 30 37 48 60 62 75										64 50 55 56 51 58 53 48 47 46																			
										45 0										40 31 39 48 52 53 50 40 30 38 47 61 62 77										62 50 55 55 51 56 52 48 47 47																			
										50 0										37 33 38 48 52 53 50 39 30 40 49 61 64 78										61 50 56 55 51 57 52 48 47 47																			
										55 0										34 36 40 48 52 53 50 38 30 40 50 63 65 76										60 50 54 55 51 58 51 48 47 47																			
										HORIZONTAL FORCE.										m. s.										m. s.																			
2 0																				1152 1130 1118 1122 1118 1110 1058 1011 993 974 1025 1090 1098 1157										1140 1138 1119 1111 1066 1120 1124 1104 1060 1058																			
7 0																				58 25 20 24 19 1091 50 12 81 89 28 1100 1100 50										46 40 16 11 77 18 24 00 55 59																			
12 0																				62 25 24 29 15 70 48 08 74 95 40 1098 09 41										50 40 10 22 87 16 26 1097 51 60																			
17 0																				68 20 26 30 10 68 23 17 63 1005 43 1105 15 33										50 31 01 22 90 14 20 92 47 60																			
22 0																				68 20 26 28 16 62 18 18 56 04 42 1099 20 34										52 29 1098 00 91 16 11 89 42 60																			
27 0																				64 20 20 28 13 58 30 13 50 00 50 1100 26 38										52 26 99 1059 98 19 11 85 38 60																			
32 0																				64 18 20 28 18 70 38 22 52 992 53 01 31 39										52 25 1100 29 1104 19 10 80 40 62																			
37 0																				62 18 20 30 22 78 32 05 70 1000 55 05 40 38										52 24 1097 20 06 19 10 77 46 62																			
42 0																				62 16 20 34 23 72 32 991 78 08 58 09 49 38										52 22 95 31 08 20 12 72 47 64																			
47 0																				52 16 24 38 43 78 28 90 75 22 67 00 57 33										53 22 96 31 11 22 10 70 50 65																			
52 0																				46 10 24 40 50 72 22 92 58 23 76 1094 60 32										49 20 97 34 22 23 10 68 50 65																			
57 0																				38 12 20 40 42 60 22 92 65 22 85 96 62 38										42 19 1105 49 24 24 10 67 54 65																			
Faht.....																																																	
Attached Thermometer.....																				81.5 81.4 81.4 81.0 80.9 80.6 80.3 80.1 80.0 79.9 79.9 79.7 79.8 79.7										79.7 79.5 79.5 79.6 79.7 79.8 79.7 79.7 79.5 79.4																			
VERTICAL FORCE.										m. s.										m. s.																													
										3 0										1350 1282 1358 1353 1438 1515 1626 1656 1667 1890 2274 2194 2159 2139										1836 1552 1399 1389 1279 1902 1903 2297 2062 2212																			
										8 0										50 40 56 53 38 18 07 56 67 1967 14 94 59 39										36 52 99 89 1391 81 93 50 62 12																			
										13 0										50 18 56 53 38 1643 10 56 1717 97 2153 94 59 39										36 52 99 89 1527 81 2203 15 62 12																			
										18 0										50 1084 78 53 49 45 10 56 06 2077 53 2262 59 39										30 1474 99 89 1650 81 91 2192 62 12																			
										23 0										24 84 78 71 49 45 10 55 06 2113 2096 62 59 00										30 74 99 89 50 94 91 70 62 12																			
										28 0										24 84 1272 71 38 88 06 55 04 95 2140 62 59 2026										30 74 99 01 1701 94 2344 70 62 12																			
										33 0										24 1210 72 71 38 86 61 02 1677 2275 40 62 59 26										1700 74 99 1218 19 94 44 70 97 12																			
										38 0										18 10 72 71 38 1712 78 88 37 97 20 62 55 1959										00 1399 55 1196 94 94 20 51 2152 12																			
										43 0										18 42 72 1507 37 14 78 90 37 97 20 62 55 59										00 91 55 02 1817 60 20 51 52 12																			
										48 0										10 68 48 07 1391 46 80 80 1702 65 45 62 55 59										1675 91 55 1033 53 12 20 32 90 12																			
										53 0										10 68 48 07 91 46 80 45 1837 65 45 62 60 59										75 91 55 1120 53 1849 20 32 2212 12																			
										58 0										10 68 48 07 1448 40 94 45 37 65 93 2159 60 1893										75 91 1401 1201 53 91 20 32 12 12																			
										Faht.....																																							
										Attached Thermometer....										81.3 81.0 80.7 80.4 80.1 80.1 79.8 79.8 79.6 79.7 79.5 79.5 79.5 79.5										7.95 7.92 79.0 79.0 79.0 7.90 78.9 78.8 78.7 78.6																			
INDUCTION INCLINO-METER.										m. s.										m. s.																													
										0 20										1620 1612 1614 1614 1618 1624 1623 1620 1610 1607 1613 1621 1632 1636										1642 1630 1628 1629 1626 1623 1629 1627 1622 1620																			
										5 20										20 12 14 14 18 24 23 20 09 08 15 24 32 38										42 30 28 29 25 24 29 27 22 20																			
										10 20										20 11 14 15 17 23 22 20 08 08 16 24 32 39										42 30 28 29 25 25 29 26 22 20																			
										15 20										20 10 15 15 20 22 22 18 07 09 17 25 33 40										41 30 28 29 25 25 29 26 22 20																			
										20 20										20 10 15 15 20 22 22 23 06 09 17 26 35 40										40 30 28 29 25 26 28 26 22 20																			
										25 20										19 10 14 15 20 23 22 19 07 09 16 27 35 40										40 28 29 32 24 27 28 26 22 20																			
										30 20										19 10 14 17 21 23 23 12 05 08 17 28 34 40										38 27 30 32 24 28 27 25 21 20																			
										35 20										18 11 12 19 21 23 23 13 06 08 18 29 33 41										36 26 30 30 23 29 27 25 21 20																			
										40 20										17 11 11 20 22 22 22 12 06 09 19 30 33 42										34 26 30 28 22 29 27 24 21 20																			
										45 20										18 11 10 20 23 23 20 12 07 09 19 30 33 43										33 25 30 27 22 28 27 22 21 20																			
										50 20										17 11 10 20 27 23 21 11 07 10 20 30 33 43										32 26 30 27 22 27 27 22 21 20																			
										55 20										15 12 12 20 23 23 21 11 06 12 20 31 34 43										30 26 29 27 22 29 27 22 21 20																			
										Faht.																																							
										Attached Thermometer....										79.4 78.9 78.7 78.0 78.0 78.0 78.0 77.8 78.2 78.1 78.0 78.0 78.0										78.0 78.0 78.0 78.0 78.0 77.9 77.9 77.7 77.6 77.4																			
METEOROLOGICAL OBSERVATIONS.										In. In. In. In. In. In. In. In. In. In. In. In. In. In.										In. In. In. In. In. In. In. In. In. In. In. In. In. In.																													
										Barometer (uncorrected)= 29.0 +..										0.912 0.908 0.900 0.910 0.930 0.933 0.944 0.930 0.910 0.876 0.854 0.828 0.815 0.810										0.818 0.828 0.851 0.873 0.888 0.890 0.898 0.904 0.894 0.889																			
										Attached Thermometer.....										75.0 74.0 73.5 73.5 72.5 73.0 74.0 74.5 75.0 75.0 74.5 73.5 73.5 74.0										74.0 74.0 74.0 74.0 74.5 74.5 74.5 74.0 74.0 74.0																			
										Dry Thermometer (standard)										73.7 72.5 72.4 71.8 71.3 71.4 71.6 71.9 72.5 72.6 72.6 72.4 72.7 73.2										73.2 73.4 73.6 73.6 73.4 73.6 74.2 73.5 73.5 73.4																			
										Wet Do.										72.8 71.4 71.0 71.0 70.2 70.8 70.7 71.1 71.2 71.4 71.3 71.2 71.0 71.7										71.6 71.9 72.0 72.1 72.3 72.0 71.8 72.0 71.8 71.9																			
										Cloudy sky in 8ths.....										8 8 8 8 8 8 8 8 8 8 8 8 8 8										8 8 8 8 8 8 8 8 8 8 8 8																			
										WIND.										Force lbs.....										Force lbs.....																			
																				Direction °										Direction °																			
										REMARKS ON THE WEATHER										2.42 2.30 2.28 3.08 1.68 1.57 1.35 1.30 2.48 1.80 1.92 2.60 2.80 2.62										2.66 2.35 1.85 2.48 3.15 2.95 3.85 3.45 3.02 1.55																			
																				326 326 326 315 304 304 292 292 281 281 11 11 11 11										236 225 225 214 214 214 202 191 225 191																			
																				Ovt, hy-Rain										Ovt, hy-Rain										Ovt, hy-Rain									
																				do. R.....										do. R.....										do. R.....									
																				do. hy-R.....										do. hy-R.....										do. hy-R.....									
																				do.										do.										do.									
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do.																				do.										do.																			

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 26TH NOVEMBER 1852, GOTTINGEN MEAN TIME.

Göttingen Mean Time.		FRIDAY, 26TH NOVEMBER, 1852.														SATURDAY, 27TH NOVEMBER, 1852.										
		p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0	0	1680	1678	1670	1668	1659	1657	1669	1678	1700	1701	1707	1715	1689	1693	1690	1680	1681	1682	1681	1679	1680	1680	1680	1680
	5	0	80	78	69	68	62	56	70	85	02	01	08	10	88	93	90	79	81	82	81	79	81	80	80	80
	10	0	80	78	68	70	54	56	72	85	02	01	09	10	87	94	90	78	81	82	81	79	81	80	80	80
	15	0	79	79	69	70	54	56	73	86	01	03	11	08	87	95	90	78	82	82	81	79	81	80	80	80
	20	0	79	79	69	70	52	57	73	87	02	04	15	05	87	98	90	76	82	82	80	79	81	80	80	80
	25	0	79	80	67	68	52	58	76	90	02	05	17	02	88	92	90	75	82	80	80	79	81	80	80	80
	30	0	78	80	65	67	52	59	79	90	02	08	16	00	88	92	88	77	82	79	80	79	81	80	80	80
	35	0	78	79	62	65	54	61	80	90	02	10	17	1698	89	92	86	78	83	79	80	79	80	80	80	80
	40	0	79	77	60	63	51	62	81	90	01	10	17	96	90	91	85	79	84	79	80	79	80	80	80	80
	45	0	78	75	60	61	51	65	81	95	00	10	18	95	91	90	83	80	85	80	80	79	80	80	80	80
	50	0	78	73	62	59	52	66	81	96	01	11	18	92	91	90	82	80	83	80	80	79	80	80	80	80
	55	0	78	73	62	60	53	69	82	98	01	10	15	91	92	90	82	80	80	80	79	79	80	80	80	80
HORIZONTAL FORCE.	m.	s.	1054	1060	1040	1056	1026	982	947	915	922	944	983	1008	1030	1041	1030	1045	1080	1087	1030	1079	1096	1081	1053	1060
	2	0	50	67	40	50	20	78	29	17	45	41	95	06	30	47	30	47	87	82	31	80	99	81	53	60
	7	0	50	70	37	52	20	79	32	20	50	45	84	09	30	49	29	50	90	82	31	80	99	80	54	60
	12	0	47	62	42	54	20	82	40	13	51	50	85	10	34	50	27	51	95	82	48	81	99	71	53	59
	17	0	42	51	50	49	11	76	35	24	43	58	85	07	40	42	22	56	1100	69	59	72	81	66	53	59
	22	0	42	47	50	42	08	70	17	40	50	70	78	10	47	42	22	59	15	62	61	72	81	60	55	59
	27	0	40	40	45	44	05	62	05	57	48	74	71	13	50	45	20	70	15	60	64	72	81	54	56	58
	32	0	38	40	52	32	09	57	896	50	48	91	82	14	51	47	20	72	07	51	71	81	81	50	58	58
	37	0	38	40	56	30	992	50	94	40	46	92	85	18	52	43	25	72	00	40	72	82	80	50	59	58
	42	0	48	42	59	30	90	28	93	37	43	81	96	18	57	39	28	72	1090	37	81	87	76	51	60	58
	47	0	52	45	60	28	89	26	94	34	53	68	1010	22	59	35	36	71	90	29	94	87	78	52	60	58
	52	0	55	45	60	23	88	40	96	32	41	71	06	30	60	33	39	71	87	20	79	90	80	52	60	58
	57	0																								
Faht...		80.8	80.7	81.0	81.0	80.5	80.2	80.1	80.3	80.4	80.5	80.7	80.9	81.0	81.0	81.0	81.0	81.1	81.3	81.4	81.5	81.5	81.7	81.6	81.6	81.6
Attached Thermometer...																										
VERTICAL FORCE.	m.	s.	3366	3406	3216	3302	3407	3445	3597	3824	3626	3601	3765	3986	3927	3730	3536	3565	3590	3552	3333	3508	3517	3475	3446	3446
	3	0	66	06	16	02	07	45	3652	24	26	20	70	86	27	00	36	65	90	52	33	08	17	75	46	46
	8	0	66	06	16	02	07	45	52	24	00	20	3878	68	27	3667	36	65	90	52	33	08	17	3376	46	46
	13	0	66	3378	39	35	07	45	3732	3790	3520	28	3992	52	15	48	21	33	3641	52	3401	08	17	76	46	46
	18	0	37	78	39	35	3349	98	32	90	36	60	92	78	15	48	3490	33	41	52	01	3490	17	76	46	46
	23	0	37	78	39	35	49	3532	3830	3655	3490	22	96	90	3890	39	90	33	41	17	01	90	17	76	46	46
	28	0	37	78	12	35	49	32	30	05	92	22	96	4020	78	25	82	20	41	17	01	90	17	76	46	46
	33	0	20	34	3198	3274	49	07	80	05	3505	3591	82	12	78	25	82	20	41	3463	94	90	17	76	46	46
	38	0	20	34	98	74	29	3450	3905	20	22	8630	40	3986	51	17	82	56	77	63	94	90	17	3446	46	46
	43	0	58	34	98	3384	45	3506	05	20	30	98	16	80	51	17	70	88	77	63	90	61	17	46	46	46
	48	0	75	34	98	84	52	06	05	20	30	3726	10	62	40	17	70	3606	00	3391	90	61	17	46	46	46
	53	0	98	34	98	84	99	57	05	05	85	55	40	62	3786	17	86	06	00	61	3511	61	3475	46	46	46
	58	0																								
Faht...		80.6	80.5	80.5	80.4	80.1	79.8	80.2	80.5	80.4	80.3	80.5	80.7	80.8	80.8	80.8	80.8	80.8	80.7	80.8	80.9	80.8	80.7	80.7	80.6	80.6
Attached Thermometer...																										
INDUCTION INCLINO-METER.	m.																									

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 22ND DECEMBER 1852, GOTTINGEN MEAN TIME.

Göttingen Mean Time.			WEDNESDAY, 22ND DECEMBER, 1852.														THURSDAY, 23RD DECEMBER, 1852.											
			p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon.	1	2	3	4	5	6	7	8	9	
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.		
		0	0	1674	1672	1670	1669	1660	1649	1655	1665	1684	1682	1680	1684	1680	1688	1690	1680	1680	1677	1677	1678	1679	1679	1681	1683	
		5	0	75	72	70	69	60	49	58	67	83	82	80	80	80	93	86	80	76	77	77	78	80	80	81	84	
		10	0	77	72	70	69	60	50	58	68	84	80	81	80	80	92	86	80	76	77	77	78	80	80	81	84	
		15	0	77	72	70	68	59	50	60	70	84	80	81	80	80	96	88	80	76	77	77	78	80	80	82	84	
		20	0	77	71	69	67	59	51	60	73	84	80	81	82	80	96	84	80	76	77	77	78	80	80	82	83	
		25	0	78	70	67	67	56	52	60	76	84	81	80	82	80	94	80	80	75	76	77	78	81	80	82	83	
		30	0	78	70	66	65	54	52	61	80	87	81	82	81	80	94	80	80	76	76	77	78	80	80	82	82	
		35	0	78	70	65	65	51	53	62	83	89	82	82	80	82	92	80	80	76	76	77	78	80	80	83	82	
		40	0	79	70	66	63	52	53	62	83	90	83	82	80	88	90	80	80	76	76	77	78	80	80	83	82	
		45	0	76	70	68	61	50	53	63	84	90	81	83	80	89	90	80	80	75	76	77	78	80	80	83	82	
		50	0	75	70	70	60	50	53	62	83	88	80	83	80	89	90	80	80	75	76	77	78	80	80	83	81	
		55	0	73	70	70	60	50	53	63	84	88	81	84	80	89	90	80	80	76	76	77	78	79	80	83	80	
		MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	832	870	884	890	869	831	769	719	769	820	850	879	910	902	878	860	905	929	920	929	959	979	980	950
				2	0	32	72	86	90	65	28	65	13	68	34	57	79	17	02	70	86	20	24	22	29	59	80	76	50
7	0			34	72	87	88	62	23	64	20	55	20	65	85	09	898	70	85	20	24	22	29	59	80	74	50	
12	0			34	74	88	87	60	21	65	23	50	26	50	89	09	95	68	86	20	24	24	29	59	82	71	49	
17	0			38	75	85	85	60	16	66	30	50	30	52	92	02	93	60	86	20	24	26	29	68	82	68	47	
22	0			39	77	81	82	58	12	70	40	50	50	52	900	06	93	60	80	22	21	26	31	70	83	62	42	
27	0			42	78	79	80	48	05	73	53	60	60	50	00	08	93	60	88	25	20	26	39	74	83	59	39	
32	0			45	79	78	80	38	00	74	76	72	58	54	08	07	93	60	95	27	20	26	39	79	83	59	39	
37	0			46	80	81	78	38	790	88	74	94	58	50	14	02	86	60	905	30	18	26	39	79	84	60	33	
42	0			50	80	87	73	36	79	75	75	815	59	60	08	02	78	60	08	34	16	26	48	77	84	60	30	
47	0			55	81	90	72	33	77	52	73	24	52	65	05	00	80	62	05	39	16	27	60	76	84	55	30	
52	0			59	82	90	70	32	75	30	72	30	52	88	09	00	80	64	10	35	16	28	58	74	85	52	27	
57	0																											
Faht...				77.0	77.0	77.1	77.2	77.3	77.1	77.1	77.9	78.2	77.2	77.3	77.7	77.8	77.8	77.7	77.7	77.9	78.0	78.1	78.1	78.1	78.1	78.1	78.1	
Attached Thermometer.....																												
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.			
		3	0	1937	1991	2007	1982	1982	1903	1934	2101	2250	2226	2179	2287	2054	1963	1985	1954	2018	2020	2019	2019	2022	2000	2018	1960	
		8	0	37	91	07	82	82	00	70	01	89	26	79	87	54	63	56	54	1920	20	19	1969	22	00	18	60	
		13	0	37	91	07	56	58	13	70	20	89	34	79	87	54	60	56	70	20	20	19	69	22	00	18	60	
		18	0	37	91	07	56	58	14	70	45	2338	34	2230	45	72	60	56	70	20	20	19	69	22	00	1990	60	
		23	0	39	91	07	56	58	14	70	60	38	2140	30	24	1992	60	56	95	20	20	19	69	22	00	90	60	
		28	0	2004	91	1944	56	58	15	95	2205	38	40	30	02	90	68	56	95	80	20	19	69	22	00	78	47	
		33	0	04	91	44	34	31	15	95	60	56	40	48	02	72	90	54	95	80	20	19	69	31	00	78	47	
		38	0	04	91	44	34	49	22	2020	31	56	2207	48	35	69	90	54	95	80	20	19	69	31	32	78	47	
		43	0	04	91	44	34	60	22	20	30	2294	07	48	35	63	85	54	2018	80	20	19	69	31	32	60	47	
		48	0	04	91	44	34	02	22	30	30	94	2178	62	2152	63	85	54	18	2000	20	19	69	31	32	60	47	
		53	0	1999	91	44	34	02	22	30	35	72	99	62	2099	63	85	54	18	26	20	19	69	31	32	60	30	
		58	0	99	91	44	34	11	22	95	44	46	99	62	99	63	85	54	20	26	20	19	69	31	32	60	12	
		Faht...		76.8	76.8	76.8	76.8	76.7	76.8	76.7	77.0	77.1	77.0	77.2	77.5	77.5	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	
		Attached Thermometer.....																										
MAGNETICAL OBSERVATIONS.	INDUCTION INCLINO-METER.	m. s.	scd																									

MADRAS, 1853.

MAGNETICAL OBSERVATIONS.

$$a \cdot \left(1 + \frac{H}{F}\right) = 4.03 \times 1.0002396 = 4.03096 \quad a + 7.6'' = \rho = 0.41' 08.2'' + 0.07' 06'' = 0.48' 14.2'' \text{ East of North.} \quad \text{Zero 1497.}$$

DECLINATION MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Absolute Declination to the East of North.
Madras Mean Time.		P.M. h.m. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41		
MARCH 1853. Declination Magnetometer.		scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	1683 1681 1685 1684 1685 1692 1695 1690 1686 1692 1687 1686 1696 1688 1689 1692 1694 1691 1687 1692 1696 1692 1694 1691 1689 1696 1689 1696 1689 1687 1692 1689 1696 1689 1	

APRIL 1853.

Declination Magnetometer.

1

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16

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18

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20

21

22

23

24

25

26

27

28

29

—1.1

*

—0.7

*

—0.6

*

1.1

*

—0.1

*

Thread broken.

1675

1687

1697

1691

1678

1654

1636

1622

1625

1630

1638

1665

667

680

692

687

670

648

628

630

648

649

651

666

669

680

690

682

660

642

643

640

650

660

664

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669

658

670

679

682

680

660

646

640

643

650

661

665

666

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675

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$$a. \left(1 + \frac{H}{F}\right) = 4.03 \times 1.0005976 = 4.032408$$

At Zero 1497.

$$\rho = 0.41.8 + 7.6 = 0.48.14 \text{ East of North.}$$

DECLINATION MAGNETOMETER.

Gottingen Mean Time.	Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.	Absolute decli- nation to the East of North.		
	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
Madras Mean Time.	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41			
JULY 1853. Declination Magnetometer.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	1617	0 56 18	
	1602	1608	1608	1608	1610	1616	1622	1620	1619	1624	1627	1630	1634	1640	1652	1647	1630	1620	1597	1589	1582	1589	1609	1620			
	621	612	608	609	612	618	625	627	630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	615	618	608	608	610	614	618	620	622	627	630	630	632	634	648	660	658	634	610	603	602	603	608	626			
	630	640	628	625	624	622	620	623	627	630	631	635	640	649	667	674	668	630	607	592	588	582	597	628			
	633	641	632	632	635	636	638	636	635	638	640	644	650	650	668	662	660	650	640	632	630	624	629	628			
	640	642	639	634	632	633	635	637	640	642	642	644	647	650	663	662	650	638	626	616	610	610	619	640			
	639	640	628	631	636	639	642	640	639	641	642	643	645	657	681	678	663	642	622	612	608	612	622	628			
	630	630	622	620	620	627	635	636	637	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	639	651	640	636	635	632	630	631	632	635	637	642	649	660	682	680	660	640	612	598	592	590	601	628			
	633	633	628	623	620	624	629	629	630	635	639	647	657	668	700	707	686	652	624	611	608	618	625	628			
	635	642	643	640	640	644	648	645	642	642	640	638	638	665	685	681	670	660	650	635	620	619	633	643			
	652	647	641	634	630	630	630	633	637	639	640	645	652	660	670	670	655	635	610	600	598	618	633	639			
	642	642	640	639	640	642	645	646	648	647	644	642	642	657	675	670	654	650	642	632	630	622	636	639			
	640	638	630	631	635	634	633	639	645	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	637	628	621	619	620	620	623	627	629	630	631	634	643	662	661	647	630	618	608	600	602	600	600	620			
	625	620	620	619	621	620	620	621	622	623	622	628	635	650	670	670	650	620	600	576	580	610	640	660			
	653	625	619	614	612	616	620	620	620	621	620	628	637	650	662	664	644	600	593	580	579	582	580	586			
	600	614	610	608	608	608	608	611	615	618	620	623	627	638	668	670	642	608	590	580	590	610	612	630			
	630	628	610	610	612	620	628	629	630	637	642	640	640	650	662	658	649	620	600	589	590	588	593	600			
	610	620	620	622	626	631	636	633	630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	615	627	631	628	628	629	630	630	630	636	640	638	638	647	665	670	662	644	638	609	602	612	629	640			
	642	640	628	626	627	628	630	633	636	639	640	643	647	652	665	665	653	640	618	588	568	564	572	600			
	602	620	629	629	632	636	640	641	642	648	652	651	651	660	676	670	662	650	635	628	625	612	618	630			
	632	630	633	628	626	633	640	647	654	655	654	652	652	660	680	680	662	635	630	618	615	626	632	641			
	640	640	632	629	629	644	660	651	642	647	650	650	652	661	680	688	671	647	630	625	618	610	622	640			
	647	640	633	631	632	642	653	656	660	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	—	—	—	—	—	—	—	—	—	661	660	662	665	678	698	700	672	649	620	612	620	623	640	660			
Means.....	1630	1631	1626	1624	1625	1628	1632	1633	1634	1637	1638	1640	1643	1652	1670	1670	1656	1634	1617	1605	1600	1604	1614	1628	1632	1632	0 57 19
Declination.....	57 11	57 15	56 54	56 46	56 50	57 2	57 19	57 23	57 27	57 39	57 43	57 51	58 3	58 39	59 52	59 52	58 55	57 27	56 18	55 30	55 10	55 26	56 6	57 2			
Mean Hourly Variations from General Month- ly Mean.....	-8	-4	-25	-33	-29	-17	0	4	8	20	24	32	44	80	153	153	96	8	-61	-109	-129	-113	-73	-17			
AUGUST 1853. Declination Magnetometer.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1652	0 58 39	
	1662	1658	1651	1649	1650	1654	1660	1660	1662	1661	1660	1661	1662	1670	1695	1680	1671	1645	1630	1614	1610	1612	1621	1640			
	649	651	654	650	649	649	650	653	658	660	662	663	665	675	697	700	688	662	648	640	640	637	647	663			
	667	660	659	659	662	659	658	658	660	661	662	661	660	680	690	692	670	646	617	603	602	623	629	647			
	665	668	661	660	662	660	660	654	650	660	670	671	672	680	700	700	688	660	636	625	630	635	650	662			
	672	667	658	661	666	667	670	664	660	661	662	673	685	690	706	699	680	642	620	600	613	630	650	672			
	680	674	660	654	650	650	651	650	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	676	674	668	662	658	659	662	660	660	664	667	671	675	683	710	709	685	658	640	632	640	650	654	657			
	678	682	672	667	665	667	670	669	670	669	667	668	670	690	700	710	694	676	650	644	640	649	650	658			
	670	679	671	670	672	670	669	669	670	670	670	672	675	690	720	740	732	710	680	661	661	667	680	690			
	695	698	705	703	704	701	700	707	715	713	710	707	705	720	738	738	730	710	692	680	678	680	682	692			
	705	706	705	706	710	708	708	708	710	715	720	722	725	740	756	762	755	735	720	700	689	700	710	712			
	718	720	712	709	708	705	703	710	718	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	722	720	716	712	710	715	722	724	727	724	720	725	730	735	750	750	742	720	692	682	690	708	722	735			
	740	734	720	714	710	712	715	715	717	719	720	722															

$$a. \left(1 + \frac{H}{F}\right) = 4.03 \times 1.0005976 = 4.032408$$

At Zero 1497. $\rho = 0.41.8 + 7.6 = 0.48.14$ East of North.

DECLINATION MAGNETOMETER.

Gottingen Mean Time.	Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.	Absolute Declination to the East of North.	
	P.M. h.m.																									
Madras Mean Time.	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41		
SEPTEMBER 1853.	scl. scl.																								Arc.	
	0.1 * -0.7 * -0.2 * 0.4 * 0.0 *																									
	1655	1655	1642	1646	1650	1650	1652	1651	1650	1649	1647	1652	1658	1662	1680	1682	1650	1610	1598	1607	1620	1650	1647	1660		
	672	668	668	675	681	666	652	651	650	645	640	636	632	660	698	689	676	653	634	602	584	595	620	630		
	650	654	650	653	655	647	641	644	647	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	655	647	647	647	646	651	658	660	662	656	650	656	662	673	712	721	709	680	659	632	613	610	623	655		
	657	662	679	675	671	666	662	664	667	668	668	673	678	680	709	720	700	680	660	650	633	631	660	685		
	688	676	670	670	670	668	668	671	674	677	680	685	690	697	712	717	698	676	652	635	630	650	660	682		
	683	688	686	689	692	695	700	697	694	692	690	700	710	702	711	722	713	700	669	650	650	662	678	688		
	698	690	693	694	694	696	700	700	701	705	709	709	710	715	725	739	730	714	704	680	672	670	690	699		
	706	710	697	698	699	700	702	703	705	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	698	693	700	702	703	703	705	704	703	703	702	704	707	718	740	750	741	702	672	660	655	660	673	690		
	705	700	692	692	691	690	690	695	700	699	698	699	700	716	742	750	708	680	665	663	658	659	682	700		
	700	690	687	689	690	695	701	702	703	704	704	706	708	718	740	721	688	660	639	630	622	647	678	692		
	698	680	673	676	679	677	677	682	688	687	685	687	690	704	748	738	688	642	630	619	621	638	663	680		
	680	678	673	675	676	678	681	683	686	688	690	690	690	698	732	720	700	682	670	650	656	670	690	702		
	700	680	680	683	685	683	682	686	690	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	700	688	687	688	688	687	688	689	690	689	688	694	700	710	720	718	702	672	660	655	655	662	680	690		
	696	697	697	695	692	690	690	691	692	693	694	692	690	706	730	732	714	700	680	652	645	660	680	696		
	700	692	687	686	685	686	688	689	691	689	686	693	700	701	720	733	719	683	668	650	651	651	660	685		
	700	698	690	690	690	690	692	692	692	691	690	690	690	698	720	730	720	698	680	653	660	662	680	693		
	700	690	685	682	679	679	680	682	685	684	683	681	680	690	709	718	708	688	678	667	672	680	686	700		
	700	687	676	674	672	674	677	678	679	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	698	700	695	692	689	685	682	680	679	681	682	683	684	692	710	710	698	682	668	648	640	640	653	660		
	662	660	672	672	672	671	671	675	680	677	674	671	669	688	700	710	698	692	678	657	650	665	690	708		
	710	700	712	702	691	688	686	681	677	678	678	680	682	680	682	684	672	662	653	633	630	648	667	680		
	685	675	671	672	672	673	675	677	680	680	680	680	680	682	703	700	690	676	658	640	639	650	668	680		
	683	670	674	674	674	669	665	667	670	673	675	674	674	680	692	693	682	668	643	633	640	649	662	678		
	1688	1682	1680	1680	1680	1679	1679	1681	1682	1682	1681	1684	1687	1695	1717	1718	1699	1676	1658	1643	1639	1649	1667	1683		
	61 4	60 40	60 32	60 32	60 32	60 28	60 28	60 36	60 40	60 40	60 36	60 48	61 0	61 33	63 1	63 5	61 49	60 16	59 3	58 3	57 47	58 27	59 40	60 44		
	32	8	0	0	0	-4	-4	4	8	8	4	16	28	61	149	153	77	-16	-89	-149	-165	-125	-52	12		
	1680	1680	1680	1680	1680	1679	1679	1681	1682	1682	1681	1684	1687	1695	1717	1718	1699	1676	1658	1643	1639	1649	1667	1683		
	61 4	60 40	60 32	60 32	60 32	60 28	60 28	60 36	60 40	60 40	60 36	60 48	61 0	61 33	63 1	63 5	61 49	60 16	59 3	58 3	57 47	58 27	59 40	60 44		
	32	8	0	0	0	-4	-4	4	8	8	4	16	28	61	149	153	77	-16	-89	-149	-165	-125	-52	12		
	1680	1680	1680	1680	1680	1679	1679	1681	1682	1682	1681	1684	1687	1695	1717	1718	1699	1676	1658	1643	1639	1649	1667	1683		
	61 4	60 40	60 32	60 32	60 32	60 28	60 28	60 36	60 40	60 40	60 36	60 48	61 0	61 33	63 1	63 5	61 49	60 16	59 3	58 3	57 47	58 27	59 40	60 44		
	32	8	0	0	0	-4	-4	4	8	8	4	16	28	61	149	153	77	-16	-89	-149	-165	-125	-52	12		
	1680	1680	1680	1680	1680	1679	1679	1681	1682	1682	1681	1684	1687	1695	1717	1718	1699	1676	1658	1643	1639	1649	1667	1683		
	61 4	60 40	60 32	60 32	60 32	60 28	60 28	60 36	60 40	60 40	60 36	60 48	61 0	61 33	63 1	63 5	61 49	60 16	59 3	58 3	57 47	58 27	59 40	60 44		
	32	8	0	0	0	-4	-4	4	8	8	4	16	28	61	149	153	77	-16	-89	-149	-165	-125	-52	12		
	1680	1680	1680	1680	1680	1679	1679	1681	1682	1682	1681	1684	1687	1695	1717	1718	1699	1676	1658	1643	1639	1649	1667	1683		
	61 4	60 40	60 32	60 32	60 32	60 28	60 28	60 36	60 40	60 40	60 36	60 48	61 0	61 33	63 1	63 5	61 49	60 16	59 3	58 3	57 47	58 27	59 40	60 44		
	32	8	0	0	0	-4	-4	4	8	8	4	16	28	61	149	153	77	-16	-89	-149	-165	-125	-52	12		
	1680	1680	1680	1680	1680	1679	1679	1681	1682	1682	1681	1684	1687	1695	1717	1718	1699	1676	1658	1643	1639	1649	1667	1683		
	61 4	60 40	60 32	60 32	60 32	60 28	60 28	60 36	60 40	60 40	60 36	60 48	61 0	61 33	63 1	63 5	61 49	60 16	59 3	58 3	57 47	58 27	59 40	60 44		
	32	8	0	0	0	-4	-4	4	8	8	4	16	28	61	149	153	77	-16	-89	-149	-165	-125	-52	12		
	1680	1680	1680	1680	1680	1679	1679	1681	1682	1682	1681	1684	1687	1695	1717	1718	1699	1676	1658	1643	1639	1649	1667	1683		
	61 4	60 40	60 32	60 32	60 32	60 28	60 28	60 36	60 40	60 40	60 36	60 48	61 0	61 33	63 1	63 5	61 49	60 16	59 3	58 3	5					

At Zero 1497. $\rho = 0.41.8'' + 7.6'' = 0.48.14''$ East of North.

DECLINATION MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Absolute Declination to the East of North.	
Madras. Mean Time.		P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41			
		scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.		Arc.	
					0.2		-1.0		1.0		0.4		-0.4															
		1	1720	1733	1713	1717	1720	1719	1720	1718	1715	1710	1715	1710	1700	1720	1723	1730	1723	1718	1718	1727	1731	1730	1727	1719	0 1 3 9	
		2	714	711	714	712	710	713	717	717	715	713	710	709	708	705	712	712	710	700	692	687	698	710	720	718	1709	2 29
		3	715	705	712	711	710	709	710	712	712	711	710	707	705	703	720	712	702	690	680	690	707	713	717	718	1708	2 25
		4	710	706	709	709	708	708	710	712	712	711	710	710	710	710	718	732	732	712	699	702	712	721	728	727	1713	2 45
		5	715	710	712	712	712	710	710	711	710																	
		6									710	710	706	703	702	710	712	730	728	720	720	722	727	728	726	1715	2 53	
		7	720	715	712	712	712	707	704	709	712	711	710	709	708	705	700	703	712	715	710	700	703	713	719	722	1710	2 33
		8	718	710	705	708	711	710	710	712	713	712	710	706	702	693	692	690	700	698	690	700	700	710	720	712	1705	2 13
		9	717	715	712	711	710	710	712	712	710	706	702	691	680	672	680	680	692	690	710	707	725	719	717	710	1704	2 9
		10	708	715	712	708	703	711	720	721	720	717	713	711	710	710	710	711	710	706	700	709	712	719	716	710	1712	2 41
		11	706	708	711	710	709	709	711	712	712	709	706	703	700	700	698	704	710	708	700	701	704	714	713	710	1707	2 21
		12	702	700	701	702	702	702	703	704	704																	
		13									703	701	702	703	700	699	700	700										

* The numbers in these Columns are not observed but interpolated for the sake of obtaining the daily Means, and the small figures heading them are the Corrections of interpolations.

Correction for $\dot{1}$ Faht. = 3.3963
 Ditto to Ther. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15 = 0.00008264$$

Zero. for Magnetometer at Themr. $88.8 = 1497$.

Ditto reduced to standard temperature $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$		
Madras Mean Time.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41						
JANUARY 1853. Horizontal Force Magnetometer.	1	968	970	965	966	963	962	955	950	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	968	43	1011	1.001686		
	2	—	—	—	—	—	—	—	—	967	984	988	992	980	968	958	940	930	938	940	969	1002	1010	1000	955	14	969	2033		
	3	1000	951	998	1002	1003	1002	1000	995	992	986	980	988	996	982	980	970	960	950	902	860	840	858	852	870	953	6	959	2115	
	4	900	916	927	940	950	953	955	977	1000	1003	1007	1013	1020	1005	965	925	930	920	912	889	892	930	973	980	939	2	941	2265	
	5	969	967	964	968	968	967	965	957	950	948	947	939	932	951	938	933	937	899	910	874	859	911	928	965	939	14	970	2025	
	6	979	1002	1051	1053	1052	1044	1035	1019	1005	998	992	976	960	940	912	858	800	827	790	832	894	967	998	967	956	29	968	2042	
	7	999	1036	988	986	980	971	960	949	940	936	932	930	929	940	930	875	845	831	837	888	910	960	973	1012	939	29	968	2042	
	8	1022	1053	1048	1093	1134	1090	1045	998	952	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9	—	—	—	—	—	—	—	—	—	931	910	917	924	940	938	920	890	842	825	859	882	899	944	960	955	43	998	1794	
	10	999	974	928	951	970	948	925	890	857	863	870	877	885	891	910	878	850	829	813	820	833	880	919	922	895	52	947	2215	
	11	979	992	960	954	944	942	938	926	915	917	920	924	928	920	900	875	843	833	824	809	824	838	860	898	903	56	959	2115	
	12	910	912	891	887	880	891	900	884	870	870	871	887	904	884	870	850	824	828	801	811	840	860	918	974	876	54	930	2355	
	13	1010	1039	1007	1026	1042	1031	1018	1009	1002	983	965	945	925	928	910	890	850	848	842	847	840	830	876	897	940	49	989	1867	
	14	910	938	932	938	940	966	990	975	962	942	922	921	920	926	912	900	866	858	846	878	893	913	962	972	924	38	962	2090	
	15	927	968	1000	986	969	961	952	950	949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	16	—	—	—	—	—	—	—	—	—	953	958	954	951	960	957	950	940	907	910	857	850	912	937	973	943	8	951	2182	
	17	1005	1030	1039	1045	1048	1041	1033	996	960	975	990	984	978	980	930	914	895	905	876	866	850	862	902	933	960	-22	938	2290	
	18	953	980	992	1024	1052	1061	1069	1089	1110	1095	1080	1070	1061	1050	1047	1023	1000	953	978	1018	982	1036	1053	1024	1033	-20	1013	1669	
	19	1068	1099	1102	1094	1082	1081	1079	1084	1090	1080	1070	1063	1057	1042	1027	1005	965	959	924	922	902	932	940	966	1026	-22	1004	1744	
	20	983	1008	1022	1032	1039	1040	1040	1033	1027	1018	1010	997	984	960	930	890	871	878	890	860	848	865	888	920	960	-20	940	2270	
	21	966	998	1032	1032	1028	1019	1008	998	990	981	972	970	969	962	940	931	905	872	844	846	840	838	879	910	947	-4	943	2248	
	22	952	970	968	975	978	978	976	972	970	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	23	—	—	—	—	—	—	—	—	—	960	950	948	947	940	925	920	880	837	804	782	800	838	871	897	918	-22	896	2636	
	24	930	942	939	960	978	985	990	978	968	969	970	977	985	982	950	920	885	854	812	827	869	892	936	978	937	-36	901	2593	
	25	994	1023	1022	1039	1052	1044	1035	1027	1020	1005	990	977	965	950	940	908	880	833	798	800	789	846	879	927	948	-34	914	2488	
	26	979	990	1002	1013	1020	1024	1027	1022	1018	1007	997	988	980	970	960	950	910	845	805	792	798	840	899	947	949	-47	902	2586	
	27	978	990	980	992	1000	1007	1012	1005	1000	996	992	988	985	960	940	910	860	797	788	780	819	872	940	999	941	-52	889	2694	
	28	1048	1093	1088	1085	1078	1074	1068	1053	1040	1030	1020	1013	1007	1000	978	953	905	867	858	867	872	923	968	1000	995	-39	956	2140	
	29	1032	1010	1008	1012	1012	1014	1015	1017	1020	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	1000	981	989	998	1020	1007	990	955	880	800	756	810	869	910	962	961	-40	921	2430	
	31	995	999	1022	1048	1071	1047	1021	998	976	973	970	965	961	970	982	980	950	899	850	831	858	909	940	980	966	-29	937	2298	
Means.....	979	994	995	1004	1005	1006	1001	991	982	976	971	969	967	963	948	926	898	872	853	850	860	895	929	955	950	.....	1	.....	.....	
Temp. Corrections	-15	-12	-8	-4	-3	0	2	4	5	6	6	8	8	11	15	17	16	11	5	-1	-7	-12	-15	-18	.....	.....	.....	.....	.....	
Corrected Means..	964	982	987	1000	1002	1006	1003	995	987	982	977	977	975	974	963	943	914	883	858	849	853	883	914	937	.....	.....	.....	951	.....	
Mean Hourly Variations from General Monthly Mean. = .00	-0108	-0256	-0298	-0405	-0421	-0454	-0430	-0364	-0298	-0256	-0215	-0215	-0198	-0190	-0100	0066	0306	0561	0769	0843	0810	0562	0306	0116	.....	.....	.....	$1 + \frac{\Delta X}{X} =$	1.002182	
JANUARY 1853. Temperature of Horizontal Force Magnetometer.	1	792	791	789	788	788	788	787	787	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	2	—	—	—	—	—	—	—	—	789	792	792	792	790	790	790	790	792	794	798	800	802	803	805	7924	—	—	—	—	
	3	805	802	802	801	800	800	800	800	799	799	798	798	797	797	798	798	799	800	802	804	808	809	810	809	8010	—	—	—	
	4	809	806	804	802	801	801	801	800	800	800	800	800	800	800	799	800	802	804	808	809	810	811	811	8033	—	—	—	—	
	5	810	809	809	808	807	805	804	803	803	802	802	801	801	800	800	800	800	802	804	807	807	809	809	8043	—	—	—	—	
	6	809	809	807	805	803	802	801	800	800	800	800	799	799	797	796	793	793	795	798	800	802	804	804	803	8008	—	—	—	—
	7	803	802	801	800	800	799	798	798	798	797	796	795	795	793	790	789	790	791	792	795	798	798	799	800	7965	—	—	—	—
	8	800	798	797	796	795	793	792	791	790	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9	—	—	—	—	—	—	—	—	—	791	792	791	791	790	787	786	788	790	790	792	795	796	798	7923	—	—	—	—	
	10	798	797	795	793	791	790	790	790	790	789	788	787	787	787	785	783	783	785	787	789	790	792	794	796	7898	—	—	—	—
	11	796	795	794	793	792	790	788	788	788	788	788	787	787	787	785	782	781	781	783	786	789	791	791	792	7886	—	—	—	—
	12	792	791	790	790	790	789	789	788	788	787	787	787	787	787	785	785	783	784	788	790	793	795	796	796	7890	—	—	—	—

Correction for 1st Faht. = 3.3963

Ditto to Ther. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15' = 0.00008264$$

Zero. for Magnetometer at Themr. 88.8 = 1497.

Ditto reduced to standard temperature 80 = 1215.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$
Madras Mean Time.		P.M. h.m. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41	Means.			
FEBRUARY 1853. Horizontal Force Magnetometer.					5.9		0.9		4.7		1.7		-1.9																
	1	987	991	996	1012	1016	1023	1028	1005	972	979	982	961	943	950	937	907	883	862	847	852	923	982	1018	1050	963	-20	943	1.002248
	2	1030	1060	1021	1044	1056	1078	1098	1054	1000	997	990	991	995	980	972	950	930	885	847	842	890	902	955	980	981	-16	965	2066
	3	970	961	986	1004	1011	996	980	978	966	967	964	948	936	910	900	877	850	810	770	780	827	887	930	962	924	4	928	2372
	4	979	968	980	966	941	957	972	959	937	935	929	918	910	913	903	872	830	795	737	717	789	830	880	910	897	33	930	2355
	5	921	933	943	944	934	923	910	915	910																			
	6										905	897	897	900	890	882	837	798	756	714	709	760	829	870	877	869	53	922	2421
	7	885	897	910	922	923	916	908	905	892	893	890	897	907	860	850	802	740	662	655	723	800	910	977	1000	864	48	912	2504
	8	994	970	958	957	945	939	932	922	902	898	890	886	885	878	860	812	753	698	650	655	740	809	898	933	865	37	902	2586
	9	940	910	908	903	886	889	891	891	882	880	875	867	862	840	820	769	698	603	560	580	674	730	804	885	814	41	855	2975
	10	890	860	840	857	863	877	890	911	922	902	879	869	862	880	880	842	769	695	640	710	722	810	875	900	839	49	888	2703
	11	940	931	934	955	965	962	958	949	930	917	900	896	895	900	898	854	828	764	725	708	732	800	841	880	878	48	926	2388
	12	897	910	917	929	929	926	922	913	894																			
	13										854	810	807	808	808	795	760	700	648	632	668	753	840	887	967	832	47	879	2776
	14	1050	1099	1148	1140	1120	1184	1246	1199	1142	1124	1103	1067	1035	988	985	960	945	890	900	916	897	967	986	979	1045	49	1094	1000
	15	1018	1020	992	993	982	977	971	966	952	948	940	928	920	920	915	883	838	790	755	760	779	824	861	892	909	71	980	1942
	16	918	938	953	957	950	959	967	976	976	970	960	952	948	935	905	878	865	810	768	729	808	832	870	898	905	73	978	1959
	17	960	980	959	968	966	964	960	950	930	931	929	908	890	887	878	848	785	744	712	728	740	780	840	885	880	79	959	2115
	18	902	940	929	933	925	919	912	905	889	875	858	846	838	840	848	820	762	713	709	681	710	777	829	859	842	77	919	2446
	19	872	868	878	888	887	891	894	892	880																			
	20										872	860	854	852	855	855	815	747	730	675	740	780	851	912	999	848	68	916	2471
	21	1042	1079	1088	1113	1126	1120	1112	1102	1082	1056	1027	1002	980	977	927	881	832	823	835	859	872	907	942	963	989	69	1058	1298
	22	955	968	999	1045	1080	1057	1032	1022	1002	987	968	951	938	940	896	842	758	679	686	722	773	850	942	997	920	48	968	2042
	23	1034	1042	1037	1011	974	978	980	970	951	947	940	927	917	915	900	858	805	773	755	752	765	810	857	880	907	19	926	2388
	24	897	900	915	934	942	933	922	926	920	918	912	914	920	910	897	860	818	770	767	778	810	819	870	931	883	7	890	2686
	25	957	967	963	980	985	985	983	987	981	963	942	949	960	963	940	891	826	782	770	780	809	850	896	920	918	-10	908	2538
	26	929	922	940	971	990	983	974	982	980																			
	27										1007	1030	1013	1000	970	962	913	870	790	781	783	827	902	960	990	936	-55	881	2760
	28	1051	1070	1036	1049	1050	1062	1072	1071	1061	1037	1010	1013	1020	1020	1012	1008	962	932	897	878	893	937	995	1020	1007	-59	948	2207
Means.....		959	966	968	978	977	979	980	973	956	948	937	928	922	914	901	864	816	767	741	752	795	851	904	944	905			
Temp. Corrections		4	5	14	19	22	26	28	33	35	37	39	42	44	51	61	67	60	49	41	33	23	16	9	4	.....	32		
Corrected Means.		963	971	982	997	999	1005	1008	1006	991	985	976	970	966	965	962	931	876	816	782	785	818	867	913	948	.....	.....	937	
Mean Hourly Variations from General Monthly Mean.		-26	-34	-45	-60	-62	-68	-71	-69	-54	-48	-39	-33	-29	-28	-25	6	61	121	155	152	119	70	24	-11	.....	$1 + \frac{\Delta X}{X}$	.....	1.002298
		-0215	-0281	-0372	-0496	-0513	-0561	-0586	-0570	-0446	-0396	-0323	-0273	-0240	-0231	-0206	0050	0504	1000	1281	1257	0984	0578	0198	-0091				
FEBRUARY 1853. Temperature of Horizontal Force Magnetometer.				*		*		*		*		*		*															
	1																												

Correction for 1° Faht. = $3.3963^{\text{scd.}}$

Ditto to Ther. = -0.5

$$k = \alpha. \cotan. v. = 0.0003139 \times \cotan. 75^{\circ} 15' = 0.00008264$$

Zero. for Magnetometer at Themr. $88^{\circ}8 = 1497.$

Ditto reduced to standard temperature $80^{\circ} = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$		
Madras Mean Time.		P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.						
MARCH 1853.	Horizontal Force Magnetometer.				4.8		-0.4		-0.7		0.2		-1.7																		
		1	1022	1015	1022	1031	1034	1035	1045	1057	1036	1014	996	982	979	961	932	908	870	870	867	888	950	1000	1035	983	-54	929	1.002363		
		2	1032	1005	998	1002	997	1004	1012	1001	992	989	986	975	968	965	948	907	906	850	842	840	886	933	980	1018	960	-51	909	2529	
		3	1045	1062	1058	1060	1052	1042	1032	1020	1010	1004	997	1002	1010	1001	992	960	940	895	868	872	912	963	985	1010	991	-56	935	2314	
		4	1058	1080	1088	1069	1041	1039	1037	1033	1030	1013	995	1006	1020	1020	1002	965	930	899	907	930	980	1008	1029	1035	1009	-76	933	2330	
		5	1037	1033	1040	1045	1041	1045	1050	1039	1030																				
		6											1044	1058	1048	1042	1040	1019	988	950	943	958	980	1025	1045	1050	1002	1023	-85	938	229
		7	1010	1013	1027	1022	1007	1023	1040	1045	1051	1058	1065	1066	1070	1069	1048	992	971	953	950	945	1048	1102	1120	1140	1035	-76	959	2115	
		8	1150	1210	1213	1198	1173	1141	1110	1087	1065	1062	1058	1058	1062	1014	993	1030	1012	991	969	990	1017	1050	1105	1112	1078	-46	1032	1512	
		9	1133	1090	1093	1117	1131	1095	1060	1054	1050	1044	1037	1033	1032	1027	1030	998	979	933	930	990	1032	1082	1088	1088	1048	-26	1022	1594	
		10	1084	1080	1062	1075	1079	1075	1072	1061	1052	1045	1037	1042	1050	1058	1055	1019	977	950	940	925	978	1037	1060	1080	1037	-37	1000	1777	
		11	1090	1130	1120	1119	1109	1111	1114	1091	1070	1063	1055	1051	1050	1072	1060	1037	980	942	940	928	1030	1055	930	1105	1052	-57	995	1818	
		12	1140	1100	1088	1084	1070	1064	1059	1060	1062																				
		13										1082	1102	1099	1099	1107	1090	1054	1010	978	978	990	1050	1085	1108	1112	1070				

* The numbers in these Columns are not observed but interpolated for the sake of obtaining the daily Means, and the small figures heading them are the Corrections of interpolations.

Correction for $\hat{i}$ Faht. = 3.3963 Ditto to Ther. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15' = 0.00008264$$

Zero. for Magnetometer at Themr. $88.8 = 1497$.Ditto reduced to standard temperature $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras Mean Time.	P.M. 4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
APRIL 1853. Horizontal Force Magnetometer.				5.9		0.7		1.9		0.4		-0.7																	
	1	1162	1119	1087	1104	1110	1100	1088	1089	1087	1083	1078	1083	1089	1090	1072	1017	940	901	860	908	986	1052	1096	1140	1056	-150	906	1.002554
	2	1159	1132	1118	1131	1132	1121	1109	1111	1110																			
	3										1116	1121	1110	1100	1092	1070	1021	942	891	876	919	978	1027	1093	1140	1067	-178	889	2694
	4	1149	1130	1130	1136	1130	1126	1120	1114	1105	1100	1095	1090	1086	1073	1053	1002	950	860	831	856	910	979	1043	1088	1048	-193	855	2975
	5	1070	1139	1285	1246	1196	1195	1192	1186	1177	1184	1190	1202	1215	1230	1230	1148	1129	1010	980	1053	1095	1149	1199	1260	1165	-203	962	2090
	6	1281	1327	1331	1323	1304	1286	1266	1275	1280	1263	1245	1224	1205	1202	1180	1177	1095	1000	1050	1129	1186	1237	1290	1330	1229	-195	1034	1496
	7	1309	1240	1201	1208	1203	1196	1188	1172	1152	1154	1155	1152	1150	1139	1124	1055	980	917	902	932	998	1060	1128	1170	1120	-142	978	1959
	8	1196	1151	1197	1212	1215	1193	1169	1174	1175	1170	1165	1155	1146	1150	1130	1077	1028	972	942	989	1050	1100	1158	1180	1129	-138	991	1851
	9	1202	1210	1157	1192	1216	1218	1219	1196	1170																			
	10										1145	1120	1114	1110	1102	1060	1045	977	930	882	940	999	1044	1081	1132	1103	-143	960	2107
	11	1156	1165	1190	1204	1207	1185	1161	1140	1115	1113	1110	1100	1091	1060	1048	1005	970	940	930	997	1040	1099	1167	1120	1096	-109	987	1884
	12	1100	1082	1117	1144	1159	1159	1158	1147	1132	1121	1110	1099	1090	1082	1080	1047	980	891	890	918	989	1040	1099	1115	1073	-136	937	2298
	13	1108	1108	1130	1143	1145	1148	1149	1141	1130	1128	1125	1117	1110	1108	1085	1035	961	897	880	908	959	1010	1069	1105	1071	-158	913	2496
	14	1118	1115	1118	1125	1121	1130	1138	1143	1145	1136	1126	1128	1132	1125	1110	1070	997	929	900	938	990	1050	1079	1081	1081	-180	901	2595
	15	1093	1105	1110	1117	1112	1108	1102	1103	1100	1095	1090	1088	1088	1080	1079	1040	967	891	881	912	960	1015	1063	1078	1053	-188	865	2892
	16	1087	1090	1096	1101	1095	1093	1089	1089	1085																			
	17										1083	1080	1085	1091	1095	1090	1075	1020	1010	980	980	982	1012	1032	1069	1063	-179	884	2735
	18	1100	1123	1099	1110	1110	1106	1100	1092	1080	1075	1070	1068	1068	1020	1010	970	891	860	807	880	940	990	1007	1035	1025	-171	854	2983
	19	1050	1081	1115	1117	1107	1119	1130	1157	1180	1156	1132	1110	1090	1085	1080	1047	992	930	917	950	969	1007	1049	1068	1068	-173	895	2644
	20	1082	1080	1076	1085	1083	1080	1076	1073	1067	1081	1094	1091	1090	1102	1080	990	930	880	830	880	930	980	1018	1050	1030	-178	852	2999
	21	1087	1089	1117	1124	1120	1122	1123	1118	1110	1106	1102	1069	1037	1042	1020	1002	1062	1019	1000	1003	1034	1080	1108	1100	1075	-203	872	2834
	22	1118	1138	1164	1169	1163	1163	1162	1153	1140	1161	1182	1165	1150	1128	1088	1041	999	930	1017	1003	1069	1100	1159	1208	1115	-196	919	2446
	23	1200	1180	1186	1196	1195	1193	1190	1174	1155																			
	24										1139	1122	1118	1115	1110	1087	1060	1000	937	890	892	950	1018	1080	1140	1097	-202	895	2644
	25	1160	1152	1152	1158	1152	1136	1118	1126	1130	1121	1112	1106	1101	1095	1070	1052	990	947	890	922	972	1030	1088	1130	1080	-214	866	2884
	26	1130	1128	1138	1148	1147	1146	1144	1094	1040	1075	1110	1119	1130	1121	1105	1065	1002	930	890	903	969	1020	1090	1122	1074	-229	845	3057
	27	1131	1124	1130	1136	1130	1125	1118	1118	1115	1108	1100	1099	1100	1090	1067	1040	970	905	860	870	932	983	1028	1072	1056	-227	829	3190
	28	1110	1100	1105	1117	1117	1108	1098	1096	1090	1091	1092	1088	1085	1071	1050	1010	952	870	850	872	950	1003	1050	1099	1045	-229	816	3297
29	1118	1114	1121	1131	1129	1130	1130	1134	1134	1127	1120	1115	1112	1107	1120	1115	1076	990	960	987	1033	1069	1121	1162	1098	-241	857	2959	
Means.....	1139	1137	1147	1155	1152	1147	1141	1137	1128	1125	1122	1116	1111	1104	1088	1048	992	929	908	942	995	1046	1096	1128	1085				
Temp. Corrections.	-202	-200	-190	-185	-183	-181	-181	-178	-177	-174	-173	-170	-168	-163	-162	-164	-169	-176	-183	-189	-195	-199	-203	-206	.....	-182			
Corrected Means..	937	937	957	970	969	966	960	959	951	951	949	946	943	941	926	884	823	753	725	753									

Correction for $\overset{\text{sec.}}{i}$ Faht. = 3.3963

Ditto to Ther. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15 = 0.00008264$$

HORIZONTAL FORCE MAGNETOMETER.

Zero. for Magnetometer at Themr. $88.8 = 1497$.Ditto reduced to standard temperature $80 = 1215$.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$			
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.						
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41							
MAY 1853.	Horizontal Force Magnetometer.			6.7		0.9		2.1		-0.2		1.1																			
		April 30	1158	1160	1164	1171	1565	1165	1164	1166	1164																				
		1										1158	1153	1151	1147	1132	1104	1070	1023	960	885	958	1016	1089	1160	1156	1110	-262	848	1.003033	
		2	1195	1207	1211	1226	1228	1220	1210	1213	1212	1226	1240	1220	1198	1183	1170	1240	1225	1160	1195	1262	1310	1414	1452	1418	1243	-267	976	1975	
		3	1397	1398	1386	1404	1408	1357	1305	1317	1325	1327	1330	1309	1285	1255	1275	1260	1210	1203	1220	1180	1191	1250	1270	1294	1298	-270	1028	1546	
		4	1307	2300	1322	1338	1340	1321	1300	1277	1249	1252	1255	1249	1240	1233	1226	1250	1220	1168	1190	1150	1186	1260	1317	1322	1261	-267	994	1826	
		5	1311	1307	1290	1299	1294	1280	1265	1262	1255	1253	1252	1247	1240	1235	1215	1177	1160	1120	1128	1170	1180	1261	1310	1327	1243	-268	975	1983	
		6	1305	1272	1261	1266	1257	1259	1260	1246	1228	1224	1220	1221	1220	1195	1175	1150	1090	1030	1012	1042	1151	1162	1190	1215	1194	-264	930	2355	
		7	1227	1220	1262	1258	1241	1252	1262	1225	1184																				
		8										1197	1210	1211	1210	1215	1174	1120	1065	1000	1000	1026	1097	1150	1199	1218	1176	-267	909	2529	
		9	1223	1220	1222	1228	1221	1219	1216	1211	1202	1201	1200	1199	1195	1195	1165	1110	1040	987	1000	1040	1070	1091	1130	1167	1156	-262	894	2653	
		10	1150	1120	1109	1114	1106	1107	1107	1108	1105	1102	1100	1091	1080	1080	1102	1068	1015	977	975	950	988	1060	1101	1164	1078	-268	810	3347	
		11	1193	1207	1208	1207	1192	1171	1148	1135	1118	1131	1144	1140	1133	1130	1117	1092	1042	998	990	988	1010	1068	1112	1180	1119	-284	835	3140	
		12	1201	1192	1193	1199	1191	1105	1098	1121	1140	1157	1174	1173	1170	1155	1147	1123	1090	1040	1002	1097	1045	1050	1070	1115	1127	-300	827	3207	
		13	1160	1220	1200	1208	1202	1206	1208	1215	1218	1229	1240	1228	1213	1210	1190	1150	1105	1070	1050	1042	1080	1133	1169	1220	1174	-329	845	3057	
		14	1241	1250	1247	1255	1250	1251	1250	1242	1230																				
		15										1225	1220	1221	1220	1200	1180	1162	1120	1110	1078	1080	1119	1142	1177	1215	1195	-363	832	3165	
		16	1257	1270	1262	1268	1260	1254	1247	1249	1247	1243	1240	1241	1240	1237	1225	1180	1150	1146	1140	1160	1155	1147	1142	1164	1214	-371	843	3074	
		17	1197	1226	1259	1266	1260	1262	1262	1251	1236	1233	1230	1224	1215	1212	1203	1163	1133	1112	1102	1140	1187	1230	1252	1261	1213	-372	841	3091	
		18	1284	1299	1299	1306	1299	1292	1284	1284	1280	1272	1264	1255	1243	1240	1227	1230	1177	1150	1140	1166	1193	1225	1252	1270	1247	-377	870	2851	
		19	1230	1277	1340	1388	1422	1411	1399	1379	1355	1327	1299	1284	1266	1230	1218	1190	1165	1133	1150	1217	1220	1250	1298	1310	1282	-374	908	2538	
		20	1321	1308	1300	1299	1284	1285	1285	1281	1273	1271	1270	1266	1260	1240	1202	1170	1120	1083	1058	1078	1127	1192	1260	1307	1231	-379	852	2999	
		21	1300	1304	1299	1310	1308	1311	1312	1319	1322																				
		22										1284	1247	1235	1220	1195	1157	1120	1070	1029	1040	1097	1130	1190	1272	1328	1225	-364	861	2926	
		23	1389	1399	1385	1380	1361	1321	1279	1272	1260	1255	1250	1247	1241	1199	1183	1150	1138	1102	1091	1080	1148	1183	1215	1223	1240	-318	922	2421	
		24	1265	1235	1262	1238	1200	1247	1292	1303	1310	1305	1300	1279	1255	1315	1325	1360	1379	1555	1665	1697	1583	1462	1440	1430	1363	-304	1059	1289	
		25	1426	1400	1550	1542	1520	1480	1438	1441	1440	1426	1413	1400	1385	1367	1347	1330	1295	1270	1223	1199	1213	1267	1313	1365	1377	-310	1067	1223	
		26	1380	1406	1400	1397	1380	1376	1370	1343	1312	1331	1350	1343	1333	1330	1315	1290	1240	1200	1158	1107	1170	1224	1290	1345	1308	-331	977	1967	
		27	1357	1358	1352	1353	1340	1335	1328	1331	1330	1314	1298	1300	1300	1307	1285	1260	1210	1180	1170	1238	1330	1400	1430	1428	1314	-362	952	2173	
		28	1418	1392	1395	1400	1391	1403	1414	1420	1422																				
		29										1371	1320	1301	1280	1255	1240	1273	1237	1200	1225	1297	1322	1350	1318	1327	1332	-362	970	2035	
		30	1330	1329	1322	1308	1280	1295	1309	1307	1300	1290	1280	1259	1236	1242	1250	1220	1238	1187	1190	1218	1228	1242	1250	1290	1267	-327	940	2273	
		31	1302	1313	1302	1307	1298	1295	1291	1294	1292	1277	1263	1258	1250	1238	1229	1221	1193	1172	1180	1190	1240	1253	1280	1285	1259	-316	943	2248	
Means.....		1279	1281	1289	1294	1285	1277	1270	1267	1260	1255	1250	1243	1232	1223	1209	1190	1154	1124	1121	1143	1174	1213	1247	1272	1231					
Temp. Corrections		-346	-343	-335	-329	-326	-319	-314	-312	-311	-306	-301	-298	-296	-291	-285	-287	-294	-301	-309	-320	-330	-340	-346	-350	.....	-316				
Corrected Means..		933	938	954	965	959	958	956	955	949	949	949	945	936	932	924	903	860	823	812	823	844	873	901	922	.....			915		
Mean Hourly Variations from General Monthly Mean.		-18	-23	-39	-50	-44	-43	-41	-40	-34	-34	-34	-30	-21	-17	-9	12	55	92	103	92	71	42	14	-7	.....	$1 + \frac{\Delta X}{X}$			1.002479	
		-0148	-0190	-0323	-0413	-0364	-0356	-0339	-0331	-0281	-0281	-0281	-0248	-0173	-0140	-0074	0100	0454	0761	0851	0761	0586	0348	0116	-0053	.....					
MAY 1853.	Temperature of Horizontal Force Magnetometer.	April 30	888	887	882	881	880	880	880	880																					
		1									879	879	878	878	877	877	878	880	882	883	885	887	890	890	890	8821					
		2	890	890	887	888	887	884	881	880	880	880	880	880	878	876	879	880	882	884	885	888	890	890	891	8838					
		3	892	891	889	888	887	885	884	883	882	881	880	880	880	879	877	879	880	882	884	886	888	888	890	890	8844				
		4	890	889	888	887	887	883	880	880	880	880	880	880	880	879	878	879	880	882	883	886	889	890	890	891	8838				
		5	891	891	890	888	887	884	882	881	880	880	880	880	880	880	878	878	880	882	883	885	887	888	889	890	8839				
		6	890	890	888	886	885	882	880	880	880	880	880	880	879	878	877	876	878	879	880	883	885	886	888	889	8828				
		7	890	890	888																										

Correction for 1st Faht. = 3.3963

Ditto to Ther. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15 = 0.00008264$$

HORIZONTAL FORCE MAGNETOMETER.

Zero. for Magnetometer at Themr. 88.8 = 1497.

Ditto reduced to standard temperature 80 = 1215.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
JUNE 1853. Horizontal Force Magnetometer.				1.7		0.9		-1.6		0.8		-0.9																	
	1	1290	1300	1276	1306	1332	1328	1322	1316	1313	1302	1290	1289	1290	1288	1273	1257	1276	1307	1320	1372	1450	1495	1538	1568	1337	-324	1013	1.001669
	2	1582	1560	1559	1516	1470	1427	1382	1394	1410	1327	1242	1294	1348	1346	1321	1302	1249	1248	1220	1240	1308	1320	1360	1400	1368	-352	1016	1644
	3	1390	1402	1420	1417	1410	1391	1370	1373	1380	1371	1361	1355	1350	1342	1320	1290	1268	1248	1230	1230	1260	1305	1348	1378	1342	-408	934	2322
	4	1380	1385	1408	1412	1413	1404	1393	1394	1398																			
	5										1373	1347	1324	1302	1300	1280	1248	1200	1169	1170	1153	1190	1280	1320	1358	1317	-427	890	2686
	6	1398	1375	1374	1370	1363	1361	1358	1336	1317	1327	1335	1326	1318	1319	1308	1299	1292	1291	1250	1280	1305	1350	1375	1375	1333	-452	881	2760
	7	1377	1380	1363	1358	1350	1351	1351	1354	1361	1356	1349	1344	1340	1300	1276	1230	1220	1207	1196	1205	1235	1260	1278	1305	1306	-442	864	2901
	8	1338	1352	1355	1349	1339	1335	1330	1322	1317	1312	1305	1302	1300	1290	1268	1232	1190	1132	1124	1165	1223	1255	1300	1335	1282	-427	855	2975
	9	1330	1320	1302	1290	1275	1259	1241	1228	1218	1233	1247	1218	1190	1193	1210	1208	1199	1202	1200	1284	1345	1410	1415	1432	1269	-418	851	3008
	10	1400	1391	1402	1391	1376	1365	1353	1343	1337	1329	1320	1310	1302	1288	1260	1233	1190	1143	1124	1148	1188	1223	1250	1267	1289	-404	885	2727
	11	1257	1255	1258	1252	1242	1242	1241	1227	1217																			
	12										1217	1216	1212	1210	1198	1198	1160	1118	1080	1051	1080	1124	1170	1242	1275	1198	-339	859	2942
	13	1260	1265	1260	1267	1271	1274	1276	1266	1260	1255	1249	1241	1235	1218	1183	1160	1134	1095	1090	1154	1170	1185	1188	1225	1216	-338	878	2785
	14	1290	1362	1366	1403	1436	1419	1400	1386	1375	1358	1340	1319	1300	1289	1262	1230	1169	1097	1072	1080	1142	1190	1223	1290	1283	-336	947	2215
	15	1355	1410	1350	1345	1336	1329	1320	1304	1292	1272	1250	1264	1280	1257	1230	1175	1123	1087	1120	1133	1157	1168	1200	1240	1250	-330	920	2438
	16	1255	1220	1214	1219	1220	1233	1245	1227	1213	1217	1220	1223	1227	1218	1150	1100	1038	990	996	1022	1040	1100	1125	1138	1160	-288	872	2834
	17	1174	1190	1179	1191	1200	1208	1215	1208	1205	1193	1180	1184	1190	1180	1157	1148	1110	1048	1012	1040	1070	1089	1146	1150	1153	-270	883	2743
	18	1158	1177	1182	1173	1160	1162	1162	1144	1130																			
	19										1167	1202	1185	1170	1151	1128	1092	1071	1033	1018	1048	1080	1100	1165	1213	1136	-280	856	2967
	20	1225	1220	1184	1214	1240	1230	1219	1220	1225	1213	1200	1186	1173	1162	1106	1100	1069	1088	1098	1095	1102	1125	1180	1222	1171	-311	860	2934
	21	1205	1210	1222	1222	1218	1238	1257	1247	1241	1253	1263	1237	1212	1179	1171	1159	1085	1048	1025	1065	1060	1125	1188	1230	1182	-330	852	2999
	22	1245	1262	1232	1233	1230	1224	1217	1192	1170	1196	1220	1214	1210	1208	1235	1231	1198	1220	1194	1173	1179	1213	1267	1290	1219	-330	889	2694
	23	1310	1320	1310	1320	1326	1330	1332	1319	1310	1312	1313	1292	1272	1250	1210	1191	1170	1148	1122	1132	1155	1180	1248	1280	1256	-350	906	2554
	24	1290	1297	1289	1292	1292	1281	1269	1263	1260	1258	1255	1247	1240	1230	1208	1172	1143	1112	1090	1097	1128	1150	1179	1178	1218	-342	876	2801
	25	1218	1242	1244	1239	1230	1221	1210	1208	1209																			
	26										1190	1169	1138	1108	1159	1131	1132	1014	1095	1123	1183	1237	1231	1262	1295	1187	-347	840	3099
	27	1300	1302	1300	1299	1295	1274	1252	1287	1326	1304	1280	1253	1228	1250	1203	1202	1131	1161	1175	1160	1224	1292	1373	1373	1260	-359	901	2598
	28	1333	1350	1320	1315	1307	1305	1302	1289	1280	1266	1250	1249	1250	1248	1217	1180	1150	1115	1120	1133	1187	1233	1330	1318	1252	-369	883	2743
	29	1317	1320	1308	1303	1295	1287	1277	1277	1280	1272	1262	1251	1242	1245	1218	1205	1133	1125	1120	1132	1163	1202	1223	1249	1238	-351	887	2711
	30	1260	1261	1253	1239	1222	1217	1210	1205	1203	1197	1190	1197	1206	1200	1162	1130	1060	1010	987	990	1023	1105	1200	1237	1165	-321	844	3066
Means.....		1305	1313	1305	1305	1302	1296	1289	1282	1279	1272	1264	1256	1250	1243														

Correction for 1 Faht. = $3.3963^{\text{scd.}}$ Ditto to Ther. = -0.5°

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15^{\circ} = 0.00008264$$

Zero. for Magnetometer at Themr. $88.8^{\circ} = 1497$.Ditto reduced to standard temperature $80^{\circ} = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$		
Madras Mean Time.		P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					
		4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41						
JULY 1853.	Horizontal Force Magnetometer.				3.1		1.1		-1.3		2.1		-0.2																		
		1	1226	1219	1212	1218	1218	1200	1179	1188	1200	1206	1208	1201	1194	1182	1150	1126	1100	1070	1065	1075	1096	1150	1182	1204	1170	-313	857	1.002959	
		2	1205	1178	1202	1219	1229	1236	1240	1242	1247																				
		3										1232	1212	1211	1210	1200	1190	1163	1120	1112	1120	1110	1153	1195	1237	1250	1196	-337	859	2942	
		4	1254	1230	1227	1226	1219	1221	1220	1208	1198	1206	1210	1205	1200	1177	1151	1118	1082	1040	1033	1060	1085	1118	1151	1161	1167	-326	841	3091	
		5	1178	1172	1150	1141	1125	1127	1127	1117	1110	1105	1095	1087	1080	1075	1040	1010	967	903	877	892	944	999	1080	1100	1063	-249	814	3314	
		6	1101	1089	1088	1095	1095	1091	1085	1094	1105	1100	1090	1063	1037	1025	1008	980	949	900	876	880	917	954	989	1040	1027	-211	816	3297	
		7	1065	1087	1078	1077	1070	1076	1080	1079	1080	1066	1047	1033	1020	1035	1012	988	955	913	892	907	890	893	945	974	1011	-211	800	3430	
		8	1002	1070	1120	1153	1180	1165	1148	1128	1110	1108	1102	1094	1087	1060	1022	995	943	930	920	920	937	974	1005	1060	1051	-222	829	3190	
		9	1036	1073	1070	1077	1077	1087	1095	1089	1085																				
		10										1112	1135	1132	1129	1100	1087	1090	1058	1038	993	1030	1042	1089	1122	1156	1083	-205	878	2785	
		11	1150	1152	1152	1152	1145	1130	1112	1109	1108	1106	1100	1097	1095	1087	1058	1050	1009	985	959	1010	1076	1109	1200	1248	1100	-216	884	2735	
		12	1228	1262	1252	1239	1220	1191	1160	1154	1150	1172	1189	1205	1222	1299	1360	1310	1220	1300	1104	1300	1334	1295	1303	1322	1241	-241	1000	1777	
		13	1330	1332	1327	1322	1310	1302	1292	1288	1287	1260	1229	1238	1247	1230	1242	1210	1170	1130	1092	1100	1140	1177	1213	1243	1238	-249	989	1867	
		14	1254	1252	1250	1249	1242	1252	1259	1232	1208	1214	1215	1212	1210	1200	1195	1172	1148	1128	1110	1059	1102	1130	1179	1185	1194	-251	943	2248	
		15	1214	1202	1210	1238	1260	1264	1265	1255	1247	1236	1220	1212	1204	1182	1150	1112	1097	1054	1076	1090	1103	1140	1154	1167	1181	-252	929	2363	
		16	1182	1198	1196	1201	1200	1199	1196	1192	1190																				
		17										1201	1208	1205	1202	1170	1118	1133	1100	1060	1070	1052	1113	1185	1219	1246	1168	-275	893	2661	
		18	1249	1240	1252	1256	1253	1248	1240	1229	1220	1231	1237	1223	1210	1190	1172	1160	1140	1119	1078	1081	1110	1144	1192	1238	1196	-319	877	2793	
		19	1258	1251	1258	1257	1250	1241	1230	1219	1210	1209	1203	1195	1187	1178	1154	1123	1079	1010	1001	1049	1097	1149	1190	1210	1175	-321	854	2983	
		20	1220	1210	1229	1237	1238	1233	1225	1216	1210	1210	1205	1200	1195	1183	1160	1140	1129	1126	1118	1120	1112	1140	1170	1193	1184	-323	861	2926	
		21	1206	1195	1180	1190	1194	1191	1185	1181	1180	1176	1167	1159	1152	1145	1075	1028	995	957	970	1002	1060	1099	1130	1188	1125	-331	794	3479	
		22	1230	1293	1322	1333	1338	1345	1350	1304	1260	1252	1240	1227	1215	1190	1162	1140	1115	1075	1040	1064	1110	1109	1159	1202	1211	-310	901	2595	
		23	1250	1290	1282	1311	1334	1306	1275	1256	1240																				
		24										1203	1162	1166	1170	1160	1142	1120	1084	1019	982	979	1020	1068	1120	1170	1171	-291	880	2768	
		25	1200	1208	1191	1193	1189	1181	1170	1139	1110	1121	1128	1124	1120	1108	1100	1093	1030	937	892	915	970	1038	1090	1122	1099	-265	834	3149	
		26	1138	1147	1138	1143	1142	1132	1120	1119	1120	1128	1132	1136	1140	1128	1107	1096	1078	1075	1059	1032	1070	1098	1137	1162	1116	-257	859	2942	
		27	1178	1179	1171	1179	1180	1172	1162	1139	1118	1131	1140	1134	1128	1117	1104	1056	1010	970	960	986	1000	1038	1065	1100	1101	-257	844	3066	
		28	1118	1139	1149	1156	1156	1154	1149	1145	1144	1139	1130	1126	1122	1113	1100	1090	1057	1045	1027	1038	1042	1060	1090	1140	1110	-254	856	2967	
		29	1158	1139	1131	1134	1131	1133	1132	1117	1105	1105	1100	1094	1088	1091	1092	1090	1063	1032	1020	1042	1097	1127	1180	1172	1107	-249	858	2951	
		30	1150	1158	1156	1156	1150	1145	1137	1130	1125																				
		31										1135	1141	1136	1132	1122	1089	1038	990	978	1018	1062	1127	1170	1157	1165	1115	-257	858	2951	
Means.....		1184	1191	1192	1198	1198	1193	1186	1176	1168	1168	1163	1158	1154	1144	1125	1101	1065	1035	1014	1033	1067	1102	1141	1170	1139	-269	870	3066		
Temp. Corrections		-296	-292	-286	-282	-279	-275	-272	-269	-267	-263	-262	-256	-252	-246	-243	-243	-246	-251	-260	-266	-275	-286	-293	-295	.....	.....	.....	.....	.....	
Corrected Means.		888</																													

Correction for 1st Faht. = 3.3963

Ditto to Ther. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15 = 0.00008264$$

Zero. for Magnetometer at Themr. 88.8 = 1497.

Ditto reduced to standard temperature 80 = 1215.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras Mean Time.	P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41					
AUGUST 1853. Horizontal Force Magnetometer.				4.4		0.7		-0.9		-1.3		-0.9																	
	1	1137	1140	1138	1143	1139	1140	1140	1133	1128	1127	1129	1121	1115	1110	1112	1090	1045	990	980	972	996	1040	1099	1140	1096	-253	843	1.003074
	2	1150	1161	1159	1153	1138	1136	1132	1130	1130	1120	1112	1100	1090	1083	1060	1050	1010	1000	1020	1045	1090	1110	1123	1132	1101	-253	848	3033
	3	1152	1170	1182	1190	1190	1174	1156	1146	1138	1139	1142	1121	1102	1088	1070	1059	1048	1040	1030	998	1019	1043	1078	1108	1108	-248	860	2934
	4	1127	1132	1133	1135	1128	1126	1123	1120	1118	1109	1102	1095	1090	1085	1053	1020	980	968	970	1000	1025	1086	1140	1152	1084	-261	823	3239
	5	1160	1147	1138	1134	1122	1116	1108	1103	1100	1097	1097	1090	1085	1080	1057	1026	980	945	970	977	1000	1014	1020	1045	1067	-259	808	3364
	6	1062	1070	1062	1065	1059	1047	1034	1032	1031																			
	7										1070	1112	1110	1110	1095	1100	1122	1095	1070	1090	1080	1065	1090	1102	1120	1079	-250	829	3190
	8	1133	1145	1138	1143	1139	1146	1152	1135	1120	1117	1116	1108	1102	1100	1090	1110	1032	988	978	1066	1072	1102	1135	1150	1105	-257	848	3033
	9	1142	1149	1165	1167	1160	1151	1140	1124	1110	1105	1102	1098	1095	1090	1073	1030	1006	965	940	985	1018	1052	1080	1092	1085	-239	846	3049
	10	1121	1142	1142	1141	1132	1131	1128	1114	1102	1098	1097	1092	1088	1080	1062	1033	960	920	900	943	960	1000	1030	1044	1061	-212	849	3024
	11	1059	1062	1067	1072	1068	1060	1050	1049	1050	1044	1040	1027	1015	1010	990	963	910	883	860	880	912	935	960	987	998	-172	826	3215
	12	1028	1037	1032	1043	1045	1042	1038	1033	1030	1030	1032	1020	1010	1000	984	960	935	915	905	935	957	980	1005	1015	1000	-154	846	3049
	13	1020	1031	1027	1029	1022	1016	1009	1006	1004																			
	14										1026	1050	1050	1052	1032	1018	973	940	903	907	938	975	1007	1030	1048	1005	-179	826	3215
	15	1052	1035	1040	1044	1040	1030	1019	1011	1005	998	993	992	992	982	970	939	905	886	882	920	964	1000	1045	1050	991	-190	801	3422
	16	1046	1018	1027	1037	1038	1020	1000	989	980	979	980	982	985	980	988	926	898	840	826	781	820	833	860	915	948	-186	762	3743
	17	960	1010	1030	1028	1018	1011	1002	1008	1016	1014	1014	1006	1000	1012	998	962	918	888	890	890	910	960	980	1006	980	-188	792	3495
	18	1022	1020	1016	1030	1035	1041	1045	1042	1040	1034	1030	1027	1025	1010	992	945	918	885	880	872	909	921	915	977	985	-186	799	3438
	19	1037	1013	997	1015	1025	1048	1070	1079	1090	1083	1079	1045	1013	1020	1070	1062	1013	975	970	990	1020	1071	1085	1130	1042	-200	842	3082
	20	1155	1127	1112	1123	1125	1150	1174	1141	1110																			
	21										1095	1082	1094	1108	1100	1080	1038	977	991	958	998	1047	1108	1090	1062	1085	-216	869	2859
	22	1094	1132	1125	1102	1070	1076	1080	1053	1027	1042	1060	1065	1072	1057	1046	1010	977	898	920	900	928	970	1032	1065	1033	-199	834	3149
	23	1071	1080	1075	1092	1100	1090	1079	1079	1080	1064	1050	1057	1065	1048	1048	1015	960	918	903	890	928	999	1040	1082	1034	-209	825	3223
	24	1115	1124	1102	1109	1108	1110	1110	1098	1088	1088	1090	1089	1090	1078	1060	1040	975	955	930	964	980	997	1030	1090	1059	-224	835	3140
	25	1101	1077	1070	1100	1121	1127	1131	1109	1088	1084	1082	1083	1085	1082	1077	1061	995	1000	953	982	1005	1044	1080	1100	1068	-224	844	3066
	26	1132	1138	1138	1143	1140	1119	1097	1109	1122	1095	1070	1090	1112	1086	1092	1070	1029	990	997	1030	1047	1081	1145	1205	1095	-231	864	2901
	27	1197	1160	1190	1191	1184	1186	1186	1172	1160																			
	28										1147	1136	1123	1112	1107	1090	1047	978	935	932	970	1000	1051	1100	1120	1103	-258	845	3057
	29	1135	1127	1123	1134	1136	1139	1140	1135	1132	1130	1130	1119	1110	1105	1103	1081	1055	1038	1046	1068	1082	1090	1087	1100	1106	-267	839	3107
	30	1099	1107	1105	1116	1119	1110	1100	1098	1097	1093	1092	1084	1078	1070	1050	1022	1082	975	985	1030	1045	1069	1086	1092	1075	-262	813	3322
	31	1083	1079	1087	1094	1092	1101	1109	1109	1110	1113	1118	1105	1093	1105	1080	1031	974	955	965	1002	1015	1057	1080	1120	1070	-283	787	3537
Means.....	1096	1098	1097	1103	1100	1098	1095																						

Correction for $\frac{1}{i}$ Faht. = 3.3963 Ditto to Ther. = -0.5 $k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15 = 0.00008264$ Zero. for Magnetometer at Themr. $88.8 = 1497$.Ditto reduced to standard temperature $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
SEPTEMBER 1853. Horizontal Force Magnetometer.				3.9	1.4	2.6	1.3	-1.7																					
	1	1134	1140	1143	1157	1164	1178	1190	1186	1177	1165	1150	1103	1060	1019	969	1110	1074	1070	1020	1236	1520	1590	1593	1540	1195	-306	889	1.002694
	2	1503	1460	1578	1587	1588	1536	1482	1423	1358	1371	1382	1298	1218	1338	1367	1368	1322	1375	1350	1420	1462	1460	1480	1532	1427	-324	1103	0925
	3	1582	1626	1587	1560	1526	1479	1430	1423	1410																			
	4										1336	1260	1257	1258	1232	1198	1157	1094	1068	1060	1110	1160	1200	1231	1240	1312	-334	978	1959
	5	1245	1220	1221	1228	1228	1223	1216	1218	1215	1214	1210	1202	1198	1190	1186	1160	1115	1057	1032	1022	1058	1155	1207	1268	1179	-309	870	2851
	6	1337	1399	1418	1447	1469	1413	1355	1343	1325	1312	1297	1276	1258	1249	1232	1213	1169	1140	1092	1055	1070	1146	1170	1183	1265	-283	982	1925
	7	1179	1160	1162	1170	1171	1171	1168	1162	1150	1140	1127	1131	1138	1144	1147	1121	1070	1010	970	945	972	1028	1100	1132	1111	-236	875	2809
	8	1165	1162	1168	1173	1170	1167	1162	1157	1147	1145	1140	1134	1132	1122	1110	1082	1020	933	893	900	930	986	1040	1097	1089	-237	852	2999
	9	1090	1082	1100	1108	1108	1110	1110	1108	1100	1107	1112	1101	1093	1090	1088	1050	982	955	930	942	970	1002	1045	1082	1061	-224	837	3124
	10	1100	1104	1091	1094	1089	1091	1090	1082	1069																			
	11										1081	1090	1089	1092	1092	1072	1045	1018	987	998	1030	1073	1095	1085	1093	1073	-225	848	3033
	12	1125	1133	1121	1113	1098	1100	1099	1096	1087	1084	1078	1072	1069	1060	1055	1042	1000	976	972	995	1040	1063	1065	1080	1068	-233	835	3140
	13	1095	1090	1098	1108	1110	1098	1084	1087	1084	1076	1065	1055	1048	1037	1048	1031	985	970	994	1019	1032	1022	1062	1065	1057	-241	816	3297
	14	1073	1070	1084	1111	1131	1129	1125	1126	1122	1110	1095	1083	1074	1060	1038	998	973	950	938	1002	1060	1094	1125	1122	1071	-244	827	3207
	15	1100	1105	1099	1153	1199	1183	1165	1161	1152	1145	1135	1104	1077	1055	1042	1068	1012	988	980	968	1033	1048	1115	1103	1091	-250	841	3091
	16	1158	1112	1106	1120	1126	1132	1135	1124	1107	1102	1095	1086	1080	1073	1049	998	950	922	908	960	997	1040	1112	1095	1066	-229	837	3124
	17	1083	1092	1082	1086	1082	1082	1079	1076	1067																			
	18										1136	1202	1182	1165	1177	1182	1190	1121	1067	1110	1105	1144	1195	1199	1205	1130	-234	896	2636
	19	1190	1176	1166	1164	1155	1153	1148	1123	1093	1083	1070	1094	1122	1139	1110	1058	1010	969	958	980	997	1033	1060	1088	1089	-221	868	2868
	20	1127	1142	1160	1159	1150	1130	1107	1111	1110	1102	1091	1085	1082	1097	1082	1046	988	967	929	950	997	1035	1057	1090	1075	-201	874	2818
	21	1110	1110	1101	1106	1104	1098	1090	1101	1107	1098	1087	1091	1099	1100	1105	1090	1005	911	868	858	925	974	1009	1042	1050	-215	835	3140
	22	1054	1058	1070	1087	1097	1100	1100	1101	1097	1097	1095	1086	1080	1079	1075	1034	969	902	863	867	920	975	1022	1055	1037	-215	822	3247
	23	1063	1068	1069	1087	1097	1095	1090	1088	1081	1087	1090	1082	1077	1068	1065	1019	950	888	842	865	890	937	990	1032	1026	-219	807	3372
	24	1040	1038	1046	1052	1051	1043	1033	1034	1030																			
	25										1024	1016	1020	1028	1025	1020	999	964	918	868	945	976	1038	1097	1156	1019	-213	806	3380
	26	1218	1245	1270	1254	1231	1214	1195	1175	1150	1136	1120	1113	1110	1105	1088	1065	1032	990	978	980	1025	1068	1066	1080	1121	-231	890	2686
	27	1085	1100	1111	1118	1118	1127	1133	1128	1117	1105	1090	1118	1150	1206	1260	1290	1228	1220	1218	1257	1302	1378	1429	1472	1198	-256	942	2256
	28	1475	1448	1419	1375	1324	1318	1309	1243	1172	1181	1187	1175	1167	1160	1160	1150	1090	1069	1062	1102	1134	1172	1167	1148	1217	-246	971	2017
	29	1143	1165	1178	1183	1181	1181	1179	1182	1180	1175	1167	1147	1130	1128	1112	1110	1058	1012	999	1028	1070	1145	1160	1179	1133	-251	882	2751
	30	1192	1183	1198	1198	1191	1171	1148	1148	1142	1131	1118	1124	1133	1130	1115	1041	100											

Correction for 1° Faht. = $\frac{3.3963}{\text{sec.}}$

Ditto to Ther. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15 = 0.00008264$$

Zero. for Magnetometer at Themr. $88.8 = 1497$.Ditto reduced to standard temperature $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
OCTOBER 1853. Horizontal Force Magnetometer.				1.7		1.7		4.3		-1.4		-0.9																	
	1	1190	1208	1239	1240	1238	1212	1182	1165	1140																1117	-264	853	1.002991
	2										1122	1107	1104	1102	1095	1083	1048	990	957	945	1002	1055	1110	1142	1128	1065	-275	790	3512
	3	1110	1100	1110	1117	1121	1124	1123	1131	1130	1109	1090	1094	1100	1090	1075	1020	970	875	906	925	980	1044	1098	1122	1065	-275	790	3512
	4	1110	1100	1102	1104	1103	1119	1131	1130	1120	1120	1122	1110	1099	1087	1098	1077	1019	960	930	952	1013	1061	1080	1083	1076	-262	814	3314
	5	1077	1080	1091	1092	1090	1086	1079	1084	1080	1075	1072	1055	1040	1027	1038	997	932	865	857	870	930	986	1040	1071	1026	-253	773	3652
	6	1070	1072	1068	1074	1076	1085	1090	1084	1070	1066	1065	1057	1050	1052	1048	1010	947	875	799	832	887	939	990	1044	1015	-256	759	3768
	7	1059	1049	1055	1061	1063	1065	1064	1063	1060	1057	1057	1048	1040	1035	1038	1002	947	900	858	862	904	957	1000	1037	1012	-252	760	3760
	8	1060	1060	1054	1059	1060	1066	1068	1078	1080																			
	9										1054	1030	1025	1021	1012	1040	1013	980	940	927	900	922	952	982	1024	1017	-249	768	3694
	10	1040	1048	1059	1066	1069	1065	1058	1082	1098	1083	1071	1065	1060	1057	1048	1020	991	984	980	990	1042	1090	1137	1150	1056	-234	822	3247
	11	1125	1090	1069	1079	1086	1081	1072	1070	1060	1054	1050	1038	1027	1030	1008	967	920	985	890	918	930	983	1037	1080	1027	-218	809	3355
	12	1088	1072	1053	1057	1058	1068	1074	1061	1040	1026	1015	1006	998	992	985	940	898	890	933	920	928	970	990	1010	1003	-213	790	3512
	13	1019	1028	1043	1048	1050	1052	1050	1048	1037	1034	1033	1028	1025	1002	1007	960	917	872	859	864	867	902	968	1019	989	-207	782	3578
	14	998	1037	1013	1040	1063	1104	1142	1150	1150	1116	1085	1087	1090	1090	1067	1042	987	958	950	972	999	1044	1060	1068	1055	-201	854	2983
	15	1060	1063	1065	1064	1060	1081	1098	1081	1056																			
	16										1047	1040	1034	1030	1018	1010	978	960	887	879	884	908	960	1002	1009	1011	-198	813	3322
	17	1042	1080	1100	1081	1058	1056	1050	1048	1037	1006	977	993	1010	1025	1028	985	930	868	830	874	925	922	970	990	995	-188	807	3372
	18	1002	1030	1130	1108	1082	1086	1086	1071	1048	1043	1040	1038	1037	1030	1027	998	940	901	895	923	962	978	1010	1018	1020	-194	826	3215
	19	1020	1017	1021	1033	1042	1043	1040	1039	1030	1019	1010	1017	1025	1025	1009	961	880	832	859	844	863	901	940	975	977	-174	803	3405
	20	988	1000	1032	1060	1084	1068	1048	1049	1042	1040	1040	1022	1005	990	970	932	900	847	831	828	859	899	954	980	978	-169	809	3355
	21	994	1009	1060	1079	1095	1072	1045	1032	1010	997	987	983	980	971	925	872	800	762	725	719	768	827	872	898	937	-114	823	3239
	22	918	922	925	930	932	939	942	969	988																			
	23										986	987	993	1000	1005	970	942	839	822	818	810	829	888	949	1006	930	-103	827	3207
	24	1050	1071	1078	1080	1079	1078	1074	1046	1010	995	982	974	967	959	973	955	892	860	854	860	889	944	998	978	985	-119	866	2884
	25	1020	1080	1107	1106	1102	1103	1100	1062	1015	1017	1022	1010	1000	975	960	945	920	900	882	870	881	911	917	938	993	-125	868	2868
	26	968	990	1002	1006	1007	1008	1005	1002	990	986	985	982	980	957	940	915	883	797	798	828	858	894	948	995	947	-128	819	3272
	27	1005	1022	1012	1004	992	983	970	980	982	966	953	956	960	950	940	903	867	820	780	802	838	881	928	960	936	-119	817	3289
	28	962	968	970	967	960	957	950	954	950	945	942	936	932	930	910	866	799	733	700	729	788	837	880	892	894	-109	785	3553
	29	890	897	902	923	940	934	925	924	915																			
	30										913	913	911	910	885	858	818	794	718	674	675	710	776	822	830	852	-61	791	3504
31	809	850	939	1002	1062	1100	1134	1156	1170	1099	1030	1057	1085	1070	1020	938	869	880	910	939	995	1015	1022	1013	1007	-39	968	2042	
Means.....	1026	1036	1050	1057	1060	1063	1062	1060	1050	1038	1027	1024	1022	1014	1003	966													

Correction for $\dot{i}$ Faht. = $\frac{\text{scd.}}{3.3963}$ Ditto to Ther. = $-\dot{0}.5$

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15' = 0.00008264$$

Zero. for Magnetometer at Themr. $88.8 = 1497$.Ditto reduced to standard temperature $80^\circ = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras Mean Time.	P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41					
NOVEMBER 1853. Horizontal Force Magnetometer.				2.4		-5.1		4.1		1.1		-1.6																	
	1	1002	1010	990	995	995	1010	1035	1012	980	978	974	966	962	950	920	862	797	753	738	755	810	887	920	913	926	-35	891	1.002678
	2	900	895	908	921	930	924	928	922	908	910	909	910	915	905	888	839	798	740	735	760	801	840	860	877	872	-19	853	2991
	3	882	879	888	891	890	869	859	879	890	886	879	873	870	860	832	771	715	692	700	743	792	832	858	867	837	-9	828	3199
	4	892	901	932	941	946	919	902	893	875	874	871	869	870	867	848	800	748	670	668	721	780	835	860	869	848	-10	838	3116
	5	857	847	850	853	852	850	859	859	850																			
	6										834	815	807	803	795	799	780	720	687	620	650	690	732	771	794	791	21	812	3330
	7	790	781	789	795	796	788	790	780	762	772	780	769	762	760	742	700	650	606	580	600	642	650	693	770	731	64	795	3471
	8	800	808	862	878	890	870	860	869	870	880	888	860	835	820	790	758	717	690	692	708	720	710	742	776	804	56	860	2934
	9	800	856	918	916	909	915	932	936	931	912	890	867	847	838	882	870	907	893	920	990	1054	1033	998	989	917	57	974	1992
	10	1002	1030	1000	1046	1087	1033	990	974	950	948	943	927	915	910	883	844	802	787	790	830	837	871	915	897	925	24	949	2198
	11	900	910	899	899	894	876	869	883	889	877	862	866	874	862	848	809	760	725	745	760	790	821	850	871	847	21	868	2868
	12	868	868	882	887	888	865	853	853	844																			
	13										872	897	892	890	882	857	820	747	730	722	745	811	860	875	880	845	-2	843	3074
	14	870	865	854	854	850	847	854	856	850	852	852	843	838	822	802	772	730	675	660	692	737	772	790	810	806	6	812	3330
	15	825	860	850	854	853	846	850	858	858	856	852	849	850	833	818	795	750	717	718	740	770	821	883	905	825	-20	805	3388
	16	891	871	886	900	910	895	891	891	882	886	888	891	898	890	870	823	788	750	710	740	815	890	930	972	865	-40	825	3223
	17	981	970	928	931	930	918	916	913	902	902	900	900	903	882	860	829	800	770	762	755	840	860	891	890	881	-53	828	3199
	18	915	910	930	942	950	945	951	923	887	900	910	902	897	900	890	845	788	730	715	720	752	816	881	927	872	-57	815	3305
	19	937	925	931	923	911	905	910	914	910																			
	20										881	850	851	856	840	815	770	737	710	704	699	721	761	810	833	838	-45	793	3487
	21	851	860	861	870	875	885	905	891	868	865	860	853	850	837	826	810	768	740	730	750	780	792	800	858	833	-32	801	3422
	22	920	947	901	894	882	882	892	906	912	886	858	857	860	850	820	795	743	730	740	731	755	790	820	829	842	-2	840	3099
	23	833	846	854	858	857	847	848	839	821	821	818	807	800	798	760	742	720	700	703	681	710	750	792	810	792	11	803	3405
	24	824	831	844	844	840	830	830	836	834	834	832	823	818	815	790	749	730	725	715	701	748	755	813	850	800	2	802	3413
	25	822	811	814	816	813	806	809	814	810	806	799	804	812	815	794	772	731	700	692	680	724	748	788	810	783	5	788	3529
	26	815	809	819	827	830	826	832	833	825																			
	27										824	820	820	823	815	790	755	753	710	695	705	740	785	810	820	795	-10	785	3553
	28	832	825	828	835	838	829	830	831	823	819	812	810	812	808	780	750	732	705	697	707	750	800	819	825	796	-2	794	3479
	29	830	821	829	828	823	816	819	819	810	807	802	802	805	797	770	735	700	670	660	658	695	750	798	802	777	12	789	3520
	30	810	812	810	812	810	804	809	816	815	810	803	792	785	790	771	760	732	710	682	680	700	740	773	795	776	13	789	3520
Means.....	871	875	879	885	887	877	878	877	868	865	860	854	852	844	825	791	752	720	711	727	768	804	836	855	832				
Temp. Corrections	-15	-12	-10	-8	-7	-4	-3	0	1	3	4	6	6	9	13	13	9	5	-1	-3	-9	-11	-13	-14	.....	-2			
Corrected Means..	856	863	869	877	880	873	875	877	869	868	864	860	858	853	838	804	761	725	710	724	759	793	823	841	.....		830		
Mean Hourly Variations from General Monthly Mean.	-26	-33	-39	-47	-50	-43	-45	-47	-39	-38	-34	-30	-28	-23	-8	26	69	105	120	106	71	37	7	-11	.....	$1 + \frac{\Delta X}{X} =$			1.003182
	-0215	-0273	-0323	-0389	-0413	-0356	-0372	-038																					

Correction for $\bar{i}$ Faht. = $3.3963^{\text{scd.}}$ Ditto to Ther. = -0.5

$$k = \alpha. \cotan. v. = 0.0003139 \times \cotan. 75.15 = 0.00008264$$

Zero. for Magnetometer at Themr. $88.8 = 1497$.Ditto reduced to standard temperature $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras Mean Time.	P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
DECEMBER 1853. Horizontal Force Magnetometer.				0.8 *		4.1 *		0.1 *		-1.6 *		0.2 *																	
	1	810	808	809	809	808	813	810	805	800	788	780	764	747	749	731	702	658	630	622	672	728	797	845	823	763	19	782	1.003578
	2	830	853	849	839	827	828	821	806	790	794	802	801	800	800	780	761	718	665	648	660	700	765	808	846	783	23	806	3380
	3	835	820	825	833	840	839	829	823	817	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4	—	—	—	—	—	—	—	—	—	828	842	821	800	807	790	781	750	738	694	700	755	798	840	855	803	29	832	3165
	5	840	842	849	855	859	838	809	805	800	789	782	775	768	750	740	729	688	660	648	660	670	712	708	713	762	37	799	3438
	6	772	840	920	1112	1302	1275	1240	1235	1230	1203	1179	1159	1138	1109	1069	999	919	870	872	890	915	938	940	977	1046	31	1077	1141
	7	1028	1000	970	968	964	972	972	961	950	955	964	934	903	888	882	885	857	850	841	854	840	840	835	845	915	43	958	2124
	8	870	882	883	892	900	904	900	889	877	881	888	883	877	862	850	827	800	789	786	798	812	824	820	822	855	40	895	2644
	9	830	853	847	849	849	850	842	840	838	835	836	838	840	838	822	798	768	804	749	722	737	773	800	818	816	31	847	3041
	10	830	845	847	842	836	832	820	815	810	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	11	—	—	—	—	—	—	—	—	—	799	792	787	782	780	742	710	682	641	632	642	660	702	735	755	763	37	800	3430
	12	762	780	804	804	803	803	795	785	775	761	750	750	750	702	668	673	638	588	542	532	610	697	755	826	723	46	769	3685
	13	894	940	1006	1035	1063	1016	960	930	900	893	890	875	860	842	832	819	793	760	728	738	718	735	806	840	870	56	926	2388
	14	865	868	860	851	841	839	828	828	827	822	820	821	822	812	790	778	730	690	650	664	682	745	795	830	794	64	858	2951
	15	855	827	820	817	813	811	800	800	800	788	780	790	800	790	770	740	730	690	678	677	694	720	763	828	774	67	841	3091
	16	844	890	905	877	848	836	815	819	822	809	800	798	795	810	773	748	729	710	718	698	692	733	775	826	795	68	863	2909
	17	870	912	916	902	887	882	868	855	842	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	18	—	—	—	—	—	—	—	—	—	819	800	801	802	777	768	742	712	677	652	647	657	698	750	787	793	62	855	2975
	19	810	807	811	807	802	793	775	768	760	753	749	757	764	760	749	739	712	678	658	622	627	656	710	762	743	67	810	3347
	20	765	790	794	796	796	805	805	799	793	780	770	746	722	708	656	683	700	652	620	620	592	605	597	610	717	79	796	3463
	21	662	747	866	892	916	860	795	788	780	793	810	811	812	797	761	731	688	678	670	680	700	723	742	780	770	93	863	2909
	22	830	803	800	806	810	813	807	810	813	803	797	784	770	763	758	749	739	682	666	637	680	664	715	738	760	82	842	3082
	23	730	755	790	816	840	839	830	819	808	800	795	778	760	742	740	710	740	732	709	717	720	740	733	772	767	91	858	2951
	24	800	805	791	797	801	802	795	787	778	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	25	—	—	—	—	—	—	—	—	—	763	752	735	718	710	720	712	709	700	689	660	677	698	703	716	742	91	833	3157
	26	730	741	741	754	766	762	749	756	762	749	739	736	732	727	732	724	729	698	684	670	682	740	762	757	734	87	821	3256
	27	745	750	754	758	760	755	742	747	752	747	745	747	748	738	722	710	688	650	644	668	718	736	741	723	729	59	788	3529
	28	715	734	763	788	812	793	766	775	783	768	756	755	753	740	717	690	695	667	655	730	737	772	808	778	748	54	802	3413
	29	770	783	780	791	800	824	839	815	790	773	760	758	756	738	710	680	662	650	652	646	680	715	730	740	743	64	807	3372
30	776	793	772	772	770	774	769	767	765	761	760	752	743	737	726	714	682	668	678	715	760	795	778	767	750	61	811	3339	
Means.....	810	826	837	849	858	852	838	832	825	817	813	806	799	788	769	751	728	701	684	689	709	743	769	790	785				
Temp. Corrections.	36	40	45	49	50	52	52	54	54	58	60	65	66	72	79	83	79	74	66	58	51	46	41	38	.....	57			
Corrected Means..	846	866	882	898	908	904	890	886	879	875	873	871	865	860	848	834	807	775	750	747	760	789	810	828	.....	.....	842	</	

$$\text{Corr. for 1 Faht.} = \frac{q}{k} = \frac{\text{scd.}}{4.382}.$$

$$k = a. \cotan. \theta. \left(\frac{r}{P} \right)^2 = 0.0000291 \times \cotan. 7^\circ 36' 36'' \times \left(\frac{6.914}{11.258} \right)^2 = 0.00008215$$

Adopted Thermometer 80.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.	P.M. 4:41	h.m. 5:41	h.m. 6:41	h.m. 7:41	h.m. 8:41	h.m. 9:41	h.m. 10:41	h.m. 11:41	h.m. 12:41	h.m. 13:41	h.m. 14:41	h.m. 15:41	h.m. 16:41	h.m. 17:41	h.m. 18:41	h.m. 19:41	h.m. 20:41	h.m. 21:41	h.m. 22:41	h.m. 23:41	h.m. 0:41	h.m. 1:41	h.m. 2:41	h.m. 3:41	Means.			
JANUARY 1853. Vertical Force Magnetometer.				-4.3		-7.7		-9.9		-2.4		12.0																
	1	2153	2181	2098	2094	2098	2115	2148	2138	2148																		
	2										1951	1758	1788	1794	1794	1742	1826	1890	1932	1851	1864	2148	1928	1956	1895	1970	38	2008
	3	1850	1825	1830	1826	1830	1813	1811	1807	1823	1759	1700	1712	1700	1583	1582	1595	1576	1618	1627	1627	1681	1715	1715	1645	1719	-2	1717
	4	1645	1634	1621	1614	1616	1599	1598	1584	1589	1573	1561	1572	1559	1559	1560	1566	2277	2532	2486	2371	2336	2336	2294	2236	1847	-13	1834
	5	2189	2158	2112	2098	2093	2085	2093	2070	2067	2052	2041	2038	2011	2011	1977	1961	1995	2011	2011	2030	2075	2060	2042	2031	2055	-19	2036
	6	2014	2014	1994	1990	1994	1988	1997	1993	2008	1984	1965	1983	1977	1977	2798	3111	3042	3087	3087	3071	3059	3009	3017	3017	2424	-5	2419
	7	2991	2991	2930	2887	2852	2844	2852	2843	2853	2812	2775	2820	2842	2839	2867	2899	2902	2945	2983	2983	2961	2961	2940	2940	2896	14	2910
	8	2915	2935	2920	2916	2920	2912	2920	2888	2876																		
	9										2858	2844	2856	2844	2830	2866	2869	2882	2916	2916	2897	2917	2971	2940	2940	2898	39	2937
	10	2926	2908	2860	2872	2892	2869	2864	2838	2835	2862	2894	2919	2921	2865	2860	2860	2863	2888	2851	2878	2878	2909	2909	2857	2878	47	2925
	11	2857	2881	2877	2867	2866	2858	2866	2853	2860	2858	2860	2861	2838	2854	2855	2855	2844	2864	2864	2901	2828	2845	2925	2976	2867	53	2920
	12	2901	2852	2843	2835	2835	2827	2835	2844	2873	2858	2848	2842	2812	2924	2955	2893	2893	2875	2915	2915	2884	2894	2894	2929	2874	51	2925
	13	2929	2918	2896	2896	2905	2883	2876	2869	2882	2883	2889	2894	2875	2889	2925	2861	2820	2900	2900	2967	3023	2996	2996	2956	2910	42	2952
	14	2956	2928	2901	2877	2861	2877	2908	2895	2901	2899	2901	2901	2877	2904	2883	2883	2922	2969	3018	2994	2983	2953	2957	2926	2920	33	2953
	15	2915	2915	2905	2901	2905	2897	2905	2882	2879																		
	16										2875	2875	2887	2875	2919	2894	2894	2871	2896	2924	2924	2976	2976	2936	2946	2907	-9	2898
	17	2946	2946	2902	2898	2902	2886	2886	2860	2854	2850	2850	2854	2835	2849	2840	2810	2810	2781	2803	2856	2891	2891	2894	2894	2866	-49	2817
	18	2860	2860	2877																								
	19	4413	4559	4289	4224	4168	4160	4168	4039	3929	4021	4117	4096	4051	4069	4078	4039	4059	4065	3916	3909	4015	4085	4133	4206	4117	-45	4072
	20	4229	4142	4043	4031	4028	3990	3968	3938	3928	3913	3903	3876	3826	3826	3730	3615	3671	3759	3682	3843	4048	4316	4483	4326	3963	-37	3926
	21	4166	4110	4095	4023	3960	3918	3891	3871	3871	3858	3849	3842	3811	3790	3819	3782	3764	3857	3814	3953	3967	4080	4115	4180	3933	-21	3912
	22	4105	4002	3895	3882	3878	3858	3853	3816	3799																		
	23										3758	3721	3718	3692	3659	3688	3658	3662	3850	3896	3927	3991	4190	4247	4008	3865	-46	3819
	24	3889	3768	3715	3728	3750	3770	3806	3676	3566	3549	3537	3533	3506	3565	3565	3597	3707	3679	3857	3960	3982	3982	4075	3984	3739	-63	3676
	25	3872	3818	3716	3684	3660	3624	3604	3589	3594	3571	3553	3552	3527	3489	3525	3547	3600	3785	3850	3834	3813	3859	3859	3923	3685	-65	3620
	26	3757	3629	3598	3594	3598	3560	3538	3503	3487	3472	3461	3452	3419	3439	3406	3486	3738	4099	4219	4300	4165	3938	3785	3270	3663	-79	3584
	27	3113	3034	3009	3033	3065	3033	3017	2981	2965	2963	2965	2948	2907	2888	2898	2900	3003	3348	3696	3620	3605	3496	3316	3291	3129	-88	3041
	28	3159	3260	3161	3128	3104	3064	3039	2990	2961	2968	2980	2976	2949	2963	3011	3075	3165	3394	3592	3832	3809	3529	3449	3407	3207	-61	3146
	29	3234	3080	3058	3061	3072	3029	3002	3016	3050																		
	30										2886	2726	2751	2752	2762	2730	2714	2830	2954	3189	3280	3319	3187	3025	2993	2988	-67	2921
	31	2970	2918	2915	2922	2938	2864	2805	2781	2776	2786	2801	2773	2722	2774	2787	2756	2795	3010	3153	3182	3141	3156	3057	3020	2908	-57	2851
Means.....		3084	3056	3007	2995	2992	2973	2970	2943	2935	2913	2895	2898	2877	2881	2914	2922	2983	3081	3124	3157	3180	3170	3158	3112	3009		
Temp. Corrections		-40	-33	-24	-21	-20	-16	-13	-10	-8	-7	-8	-5	-4	0	5	6	1	-5	-12	-23	-31	-38	-42	-46	.....	-16	
Corrected Means.		3044	3023	2983	2974																							

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{q}{k} = \frac{\text{sec.}}{2.294}.$$

$$k = a. \cotan. \theta. \left(\frac{r}{T} \right)^2 = 0.0000291 \times \cotan. 7^\circ 36' 49'' \times \left(\frac{6.915}{8.145} \right)^2 = 0.00015691.$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4:41	5:41	6:41	7:41	8:41	9:41	10:41	11:41	12:41	13:41	14:41	15:41	16:41	17:41	18:41	19:41	20:41	21:41	22:41	23:41	0:41	1:41	2:41	3:41				
FEBRUARY 1853. Vertical Force Magnetometer.				4.5		-1.5		5.1		14.9		7.7																
	1	3020	2977	2944	2948	2944	2901	2860	2860	2849	2864	2849	2873	2881	2881	2812	2791	2921	3098	3186	3321	3284	3258	3074	2991	2974	-23	2951
	2	2991	3057	2995	3029	3055	3054	3055	3000	2935	2998	3032	3040	3032	2939	2953	2914	2966	3107	3339	3530	3490	3239	3195	3136	3087	-19	3068
	3	3059	3030	3090	3094	3090	3058	3028	3025	3011	3046	3051	3038	3010	2972	3008	2981	3065	3214	3354	3356	3566	3456	3293	3236	3130	-8	3122
	4	3135	3135	3188	3192	3188	3167	3149	3154	3149	3140	3101	3109	3101	3100	3108	3086	3117	3238	3404	3552	3460	3363	3236	3208	3199	12	3211
	5	3234	3263	3235	3227	3211	3183	3157	3162	3157																		
	6										3176	3165	3173	3165	3151	3145	3104	3094	3164	3268	3322	3309	3240	3159	3135	3192	25	3217
	7	3195	3242	3195	3199	3195	3181	3169	3163	3147	3162	3147	3158	3154	3154	3137	3124	3193	3362	3585	3550	3456	3242	3065	3095	3220	24	3244
	8	3133	3187	3187	3191	3187	3184	3184	3182	3169	3184	3169	3183	3182	3142	3164	3219	3314	3497	3611	3557	3457	3295	3126	3126	3243	15	3258
	9	3187	3234	3223	3227	3223	3222	3223	3236	3239	3237	3206	3214	3206	3172	3196	3233	3291	3409	3545	3768	3744	3574	3360	3212	3308	16	3324
	10	3175	3260	3261	3275	3280	3279	3280	3276	3261	3276	3261	3248	3220	3276	3247	3211	3169	3328	3452	3533	3558	3497	3373	3280	3303	24	3327
	11	3297	3297	3314	3311	3299	3298	3299	3290	3270	3282	3265	3274	3268	3291	3282	3267	3315	3377	3437	3485	3515	3439	3408	3408	3333	21	3354
	12	3360	3340	3291	3292	3285	3284	3285	3290	3285																		
	13										3287	3259	3279	3284	3284	3283	3283	3311	3394	3503	3565	3498	3372	3328	3448	3337	20	3357
	14	3481	3511	3417	3415	3404	3403	3404	3384	3353	3349	3315	3303	3276	3312	3341	3341	3291	3325	3336	3320	3388	3502	3462	3407	3377	26	3403
	15	3442	3388	3361	3365	3361	3357	3355	3383	3400	3415	3400	3394	3373	3359	3341	3341	3394	3505	3586	3654	3692	3636	3636	3591	3447	36	3483
	16	3538	3505	3474	3478	3474	3456	3440	3449	3448	3463	3448	3439	3415	3392	3382	3372	3415	3487	3550	3528	3550	3522	3566	3571	3473	39	3512
	17	3612	3515	3476	3467	3449	3448	3449	3447	3434	3449	3434	3420	3391	3400	3400	3393	3454	3590	3706	3686	3721	3690	3663	3600	3512	43	3555
	18	3573	3573	3525	3506	3478	3474	3472	3466	3450	3465	3450	3446	3427	3424	3424	3416	3450	3457	3482	3462	3520	3545	3545	3512	3481	42	3523
	19	3482	3519	3494	3484	3465	3464	3465	3466	3456																		
	20										3466	3447	3443	3423	3423	3442	3406	3423	3483	3540	3542	3583	3643	3664	3633	3494	36	3530
	21	3633	3559	3559	3542	3517	3495	3475	3476	3466	3470	3445	3460	3459	3441	3427	3408	3342	3315	3276	3309	3278	3044	2870	2916	3383	38	3421
	22	2957	3009	3009	3013	3009	2985	2964	2969	2964	2967	2940	2946	2937	2936	2994	3045	3086	3185	3282	3364	3406	3440	3345	3250	3083	21	3104
	23	3202	3202	3154	3107	3052	3069	3089	3094	3089	3086	3054	3053	3037	3059	3048	3046	3030	3057	3083	3110	3146	3214	3143	3163	3099	00	3099
	24	3186	3186	3143	3147	3143	3113	3086	3088	3080	3095	3080	3083	3070	3053	3069	3069	3129	3216	3216	3155	3118	3195	3227	3262	3134	-4	3130
	25	3227	3166	3133	3137	3133	3112	3094	3099	3094	3096	3068	3073	3062	3060	3035	3014	3005	3062	3112	3105	3073	3021	3145	3052	3091	-15	3076
	26	3063	3079	3065	3198	3323	3303	3285	3282	3268																		
	27										3286	3274	3265	3241	3202	3211	3182	3245	3307	3356	3399	3521	3432	3284	3246	3263	-46	3217
28	3373	3373	3323	3327	3323	3310	3300	3305	3300	3294	3258	3274	3274	3274	3311	3347	3299	3367	3456	3556	3523	3476	3414	3378	3351	-52	3299	
Means.....	3273	3275	3252	3257	3254	3242	3232	3231	3220	3231	3213	3216	3204	3196	3198	3191	3222	3314	3403	3447	3452	3389	3316	3286	3271			
Temp. Corrections	-7	-7	00	3	6	8	9	12	14	15	17	19	21	26	31	33	28	22	16	11	5	00	-3	-6	.....	11		
Corrected Means..	3266	3268	3252	3260	3260	3250	3241	3243	3234	3246	3230	3235	3225	3222	3229	3224	3250	3336	3419	3458	3457	3389	3313	3280	3271	.....	3282	
Mean Hourly Variations from General Monthly Mean.	16	14	30	22	22	32	41	39	48	36	52	47	57	60	53	58	32	-54	-137									

Adopted Temperature 80.

VERTICAL FORCE MAGNETOMETER.

* The numbers in these Columns are not observed but interpolated for the sake of obtaining the daily Means, and the small figures heading them are the Corrections of interpolations.

March 1, 19h. Gottingen Mean Time.—The Vertical Force needle, which had been used up to this time nearly in the magnetic Meridian, was turned at right angles thereto, agreeably to the directions given in the Royal Society's "*Report on Physics including Meteorology, &c.*"

2, 17h. Gottingen Mean Time.—The Needle and Micrometers re-adjusted. The observations of the 1st and 2d instant, rejected in taking the hourly and daily Means.

15, 19h. Gottingen Mean Time.—The Needle taken out and vibrated horizontally.

$$\text{Corr. for } i \text{ Faht.} = \frac{q}{k} = \frac{\text{sed.}}{k} = 1.34.$$

$$k = \alpha \cdot \cotan. \theta \cdot \left(\frac{r}{T} \right)^2 = 0.0000291 \times \cotan. 7^\circ 37' 38'' \times \left(\frac{6.917}{6.220} \right)^2 = 0.00026874.$$

Adopted Temperature 80°.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.			
	4:41	5:41	6:41	7:41	8:41	9:41	10:41	11:41	12:41	13:41	14:41	15:41	16:41	17:41	18:41	19:41	20:41	21:41	22:41	23:41	0:41	1:41	2:41	3:41				
APRIL 1853. Vertical Force Magnetometer.				-6.1		-5.5		-11.8		7.7		3.9																
	1	4958	4944	4907	4892	4889	4884	4889	4879	4892	4919	4931	4921	4903	4863	4893	4940	5051	5241	5281	5290	5120	5132	5051	5070	4989	- 67	4922
	2	5024	4943	4850	4871	4904	4888	4883	4876	4892																		
	3										4888	4868	4853	4831	4831	4874	4916	4916	4967	5044	5074	5074	5056	5056	5016	4933	- 78	4855
	4	4988	4935	4921	4889	4870	4865	4870	4858	4870	4892	4898	4873	4841	4865	4843	4920	4952	4996	5062	5108	5030	4955	4955	4944	4925	- 84	4841
	5	4944	5034	5040	4959	4890	4881	4882	4874	4890	4889	4872	4898	4916	4916	4932	4972	5073	5022	5061	5082	4890	4839	4828	4887	4936	- 88	4848
	6	4902	4956	4894	4866	4850	4845	4850	4858	4889	4879	4853	4857	4853	4883	4915	5063	5180	5336	5380	5249	5219	5131	4919	4973	4983	- 82	4901
	7	4938	4857	4883	4877	4883	4885	4898	4884	4893	4901	4893	4877	4853	4855	4892	4999	5202	5246	5282	5220	5106	5045	4983	4969	4972	- 61	4911
	8	4960	4919	4916	4911	4919	4872	4836	4850	4888	4896	4888	4874	4853	4874	4878	4922	5072	5161	5176	5176	5152	4964	4906	4942	4950	- 61	4889
	9	4972	4972	4915	4909	4916	4903	4900	4888	4900																		
	10										4884	4852	4849	4839	4794	4819	4902	4902	5036	5158	5219	5177	5046	5009	5009	4949	- 62	4887
	11	4967	4947	4941	4911	4894	4865	4847	4854	4885	4893	4885	4899	4905	4818	4886	4947	5050	5170	5234	5149	5147	5174	4966	4966	4967	- 49	4918
	12	4961	4913	4912	4906	4912	4881	4860	4846	4855	4849	4828	4832	4828	4788	4840	4905	5013	5141	5200	5192	5091	5045	4889	4889	4932	- 62	4870
	13	4898	4898	4898	4856	4826	4824	4832	4817	4825	4833	4825	4815	4798	4782	4815	4870	4965	5027	5061	5066	5099	5042	4967	4916	4898	- 70	4828
	14	4916	4891	4891	4870	4862	4857	4862	4851	4864	4854	4828	4832	4828	4756	4771	4884	4965	5054	5135	5153	5104	5014	4908	4908	4911	- 79	4832
	15	4896	4896	4818	4812	4818	4818	4828	4802	4800	4808	4800	4797	4786	4763	4775	4856	4987	5090	5147	5124	5036	5036	4996	4911	4892	- 80	4812
	16	4911	4879	4879	4865	4863	4845	4837	4825	4837																		
	17										4824	4800	4804	4800	4834	4759	4879	4983	4874	4955	4982	4968	4930	4930	4914	4874	- 76	4798
	18	4914	4939	4846	4843	4853	4841	4840	4824	4832	4843	4838	4832	4818	4748	4806	4840	4909	4994	5077	5001	4929	4892	4800	4800	4869	- 74	4795
	19	4868	4887	4887	4881	4887	4883	4889	4862	4858	4847	4821	4804	4779	4779	4783	4848	4921	5044	5085	5025	4952	4952	4967	4922	4893	- 76	4817
	20	4922	4865	4865	4849	4846	4826	4816	4788	4784	4814	4828	4816	4796	4790	4755	4831	4920	5004	5040	4999	4970	4942	4952	4956	4874	- 77	4797
	21	4941	4895	4895	4854	4825	4808	4801	4766	4754	4774	4779	4759	4731	4773	4773	4915	4945	4978	5029	5051	5051	4938	4872	4872	4866	- 84	4782
	22	4862	4862	4875	4869	4875	4844	4823	4790	4780	4788	4780	4771	4755	4737	4764	4881	5026	5101	4964	5003	4861	4914	4864	4864	4861	- 85	4776
	23	4829	4829	4829	4823	4829	4817	4816	4804	4816																		
	24										4794	4756	4774	4784	4734	4749	4804	4879	4970	5015	5038	5037	4989	4883	4813	4850	- 87	4763
	25	4847	4847	4820	4815	4822	4801	4791	4805	4842	4817	4777	4764	4744	4741	4752	4821	4931	5007	5099	5069	5014	4980	4856	4794	4857	- 92	4765
	26	4794	4811	4811	4805	4811	4799	4797	4802	4830	4799	4752	4745	4731	4765	4771	4812	4895	4987	5080	5120	5120	5062	4993	4893	4866	- 96	4770
	27	4847	4834	4810	4776	4754	4764	4785	4780	4797	4805	4797	4777	4749	4749	4721	4721	4783	4870	4870	4883	4912	4877	4877	4803	4806	- 96	4710
	28	4803	4789	4805	4799	4805	4779	4763	4745	4750	4758	4750	4767	4776	4730	4734	4782	4832	4942	5026	5044	5021	4854	4761	4741	4815	- 98	4717
29	4769	4815	4811	4796	4794	4773	4762	4753	4767	4775	4767	4758	4741	4719	4772	4819	4825	4910	5004	5004	4969	4855	4786	4806	4815	-102	4713	
Means.		4905	4894	4877	4860	4856	4842	4838	4827	4840	4841	4827	4822	4810	4795	4811	4882	4967	5047	5099	5093	5042	4987	4919	4903	4899		
Temp. Corrections		-91	-88	-81	-79	-77	-76	-75	-73	-72	-71	-70	-69	-68	-65	-67	-71	-75	-79	-83	-88	-91	-93	-94	-94	.....	-79	
Corrected Means..		4814	4806	4796	4781	4779	4766	4763	4754	4768	4770																	

$$\text{Corr. for } i \text{ Faht.} = \frac{q}{k} = \frac{\text{scd.}}{1.355}.$$

$$k = \alpha \cdot \cotan. \theta \cdot \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cotan. 7^\circ 38' 59'' \times \left(\frac{6.917}{6.247} \right)^2 = 0.00026562.$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras Mean Time.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
	4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
MAY 1853. Vertical Force Magnetometer.	April 30			-13.1		-17.1		6.2		-0.9		10.6																	
	1	4806	4827	4825	4812	4825	4789	4787	4796	4793																4804	-111	4693	
	2	4830	4810	4762	4748	4760	4714	4703	4709	4703	4712	4722	4742	4741	4737	4737	4805	4769	4880	5186	5040	5040	4777	4725	4706	4794	-114	4680	
	3	4764	4724	4719	4709	4725	4656	4621	4627	4621	4649	4679	4713	4725	4685	4762	4817	4872	4948	4865	4900	4930	4930	4779	4779	4758	-114	4644	
	4	4748	4773	4774	4760	4773	4716	4693	4697	4689	4702	4716	4707	4677	4677	4736	4860	4942	4980	5005	5135	5006	4971	4881	4790	4809	-115	4694	
	5	4723	4759	4724	4711	4724	4707	4724	4729	4722	4716	4712	4711	4689	4689	4740	4774	4832	4873	4917	4847	4770	4692	4730	4730	4748	-113	4635	
	6	4698	4683	4683	4672	4687	4670	4688	4703	4705	4704	4705	4707	4687	4687	4732	4843	4982	5058	5098	5062	5023	4874	4789	4720	4786	-113	4673	
	7	4720	4746	4774	4746	4745	4728	4745	4753	4748																			
	8																									4761	-116	4645	
	9	4644	4717	4728	4697	4692	4662	4666	4673	4667	4660	4654	4683	4691	4655	4593	4652	4740	4886	4886	4849	4801	4766	4723	4683	4711	-111	4600	
	10	4735	4735	4720	4707	4720	4688	4690	4697	4691	4685	4681	4671	4639	4627	4627	4660	4737	4793	4872	4936	4927	4856	4856	4737	4737	-114	4623	
	11	4710	4710	4710	4686	4688	4634	4615	4621	4615	4647	4680	4682	4662	4636	4685	4685	4702	4768	4844	4894	4920	4837	4837	4776	4719	-119	4600	
	12	4745	4717	4717	4719	4747	4730	4747	4729	4699	4698	4699	4718	4715	4660	4710	4710	4758	4823	4872	4915	4945	4907	4876	4845	4767	-128	4639	
	13	4797	4797	4760	4735	4736	4706	4711	4717	4711	4719	4728	4717	4684	4684	4705	4690	4714	4863	4984	5038	4953	4953	4906	4878	4787	-139	4648	
	14	4834	4530	4530	4614	4725	4723	4755	4756	4744																			
	15																									4748	-153	4595	
	16	4766	4766	4781	4749	4743	4716	4724	4731	4725	4733	4742	4765	4766	4730	4689	4690	4771	4771	4825	4760	4751	4775	4775	4729	4749	-155	4594	
	17	4765	4800	4770	4750	4756	4735	4749	4756	4750	4754	4760	4747	4712	4721	4686	4686	4815	4767	4858	4807	4766	4766	4830	4855	4765	-155	4610	
	18	4855	4816	4770	4751	4758	4721	4719	4726	4720	4727	4736	4747	4736	4755	4763	4823	4899	4949	4949	4924	4899	4831	4760	4760	4796	-157	4639	
	19	4824	4863	4847	4791	4761	4744	4761	4767	4761	4732	4704	4715	4704	4738	4766	4811	4879	4934	4963	4868	4830	4787	4723	4723	4792	-156	4636	
	20	4780	4793	4730	4708	4713	4696	4713	4733	4740	4739	4740	4736	4711	4744	4720	4720	4775	4792	4849	4889	4856	4815	4837	4811	4764	-157	4607	
	21	4811	4792	4792	4773	4781	4771	4796	4802	4796																			
	22																									4795	-152	4643	
	23	4797	4797	4755	4696	4664	4647	4664	4670	4663	4682	4703	4714	4703	4735	4756	4768	4812	4835	4803	4894	4894	4827	4766	4720	4749	-132	4617	
	24	4737	4716	4751	4711	4698	4739	4814	4801	4775	4774	4775	4723	4649	4731	4779	4872	4872	4839	4930	4610	4850	4684	4726	4771	4764	-127	4637	
	25	4771	4645	4784	4715	4673	5651	4664	4719	4761	4760	4761	4740	4698	4681	4704	4677	4677	4772	4822	4880	4919	4919	4892	4810	4754	-129	4625	
	26	4786	4750	4726	4719	4739	4705	4706	4713	4707	4720	4735	4729	4702	4718	4718	4679	4744	4716	4779	4842	4876	4876	4825	4772	4749	-140	4609	
	27	4743	4745	4752	4726	4726	4709	4726	4730	4721	4731	4743	4739	4714	4731	4712	4705	4727	4765	4857	4853	4812	4773	4762	4778	4749	-152	4597	
	28	4757	4784	4760	4731	4728	4708	4722	4740	4745																			
	29																									4767	-149	4618	
	30	4775	4775	4737	4725	4740	4723	4740	4749	4745	4737	4730	4741	4730	4745	4717	4689	4708	4736	4804	4840	4840	4814	4792	4761	4754	-134	4620	
	31	4798	4728	4732	4719	4732	4705	4712	4719	4713	4698	4685	4714	4721	4735	4755	4843	4871	4867	4867	4811	4766	4727	4727	4698	4752	-133	4619	
Means.....		4767	4752	4745	4725	4732	4707	4717	4725	4720	4717	4715	4719	4702	4702	4721	4751	4802	4851	4907	4894	4880	4825	4794	4764	4764			
Temp. Corrections		-148	-143	-137	-135	-133	-131	-129	-128	-127	-125	-123	-121	-120	-11														

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{q}{k} = 1.383.$$

$$k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cotan. 7^\circ 39' 10'' \times \left(\frac{6.917}{6.810} \right)^2 = 0.00026025.$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.		P.M. h.m.	4:41	5:41	6:41	7:41	8:41	9:41	10:41	11:41	12:41	13:41	14:41	15:41	16:41	17:41	18:41	19:41	20:41	21:41	22:41	23:41	0:41	1:41	2:41				
JUNE 1853. Vertical Force Magnetometer.					-2.3		4.1		-11.7		13.7		8.4																
	1	4776	4787	4707	4705	4707	4728	4740	4716	4716	4722	4700	4728	4740	4658	4712	4685	4853	4905	4905	4877	4918	4875	4787	4728	4766	-139	4627	
	2	4728	4747	4743	4741	4743	4703	4655	4629	4626	4615	4576	4657	4721	4721	4710	4804	4854	4915	4978	4942	4844	4745	4705	4744	4744	-151	4593	
	3	4744	4784	4764	4762	4764	4755	4738	4741	4767	4781	4767	4767	4751	4728	4749	4749	4781	4781	4872	4900	4841	4787	4787	4814	4778	-177	4601	
	4	4833	4825	4825	4797	4773	4771	4761	4749	4761																			
	5										4796	4803	4811	4803	4771	4806	4806	4834	4834	4834	4869	4869	4874	4889	4889	4816	-182	4634	
	6	4894	4823	4785	4779	4777	4784	4782	4760	4762	4806	4822	4807	4775	4794	4826	4740	4775	4814	4814	4877	4844	4878	4786	4804	4805	-192	4613	
	7	4844	4844	4794	4794	4799	4803	4799	4775	4774	4785	4769	4777	4769	4758	4797	4813	4837	4882	4882	4891	4850	4920	4928	4876	4823	-188	4635	
	8	4876	4887	4815	4793	4775	4784	4784	4760	4760	4766	4745	4756	4751	4751	4781	4781	4768	4859	4955	5036	4959	4868	4760	4760	4814	-180	4634	
	9	4855	4887	4803	4801	4803	4791	4770	4743	4740	4754	4740	4754	4752	4763	4799	4799	4840	4889	4975	4999	5023	4847	4768	4768	4819	-176	4643	
	10	4831	4875	4780	4771	4766	4781	4787	4766	4768	4782	4768	4773	4761	4747	4747	4716	4750	4817	4892	4887	4829	4840	4811	4862	4796	-168	4628	
	11	4878	4878	4810	4808	4810	4794	4770	4758	4770																			
	12										4781	4764	4772	4764	4721	4776	4776	4790	4790	4796	4840	4852	4867	4845	4792	4800	-141	4659	
	13	4792	4767	4767	4755	4747	4751	4747	4725	4727	4741	4727	4723	4703	4724	4747	4716	4762	4756	4756	4712	4712	4770	4827	4771	4747	-143	4604	
	14	4830	4814	4775	4773	4775	4735	4687	4684	4705	4719	4705	4715	4709	4709	4694	4644	4644	4652	4652	4702	4637	4816	4707	4833	4722	-141	4581	
	15	4889	4814	4715	4709	4707	4720	4725	4697	4693	4707	4693	4704	4699	4719	4758	4769	4769	4808	4775	4811	4811	4737	4718	4738	4745	-140	4605	
	16	4755	4697	4697	4695	4697	4685	4664	4691	4741	4734	4699	4720	4725	4696	4696	4750	4766	4825	4825	4780	4679	4603	4540	4654	4709	-122	4587	
	17	4796	4796	4729	4727	4729	4735	4733	4721	4733	4735	4709	4717	4709	4724	4696	4705	4655	4702	4702	4638	4657	4635	4677	4694	4711	-118	4593	
	18	4694	4722	4722	4720	4722	4704	4678	4666	4678																			
	19										4688	4671	4669	4650	4685	4768	4772	4735	4735	4769	4799	4806	4643	4599	4653	4706	-123	4583	
	20	4636	4678	4636	4667	4702	4716	4721	4677	4656	4670	4656	4669	4666	4687	4698	4770	4785	4835	4864	4773	4753	4759	4698	4704	4712	-136	4576	
	21	4704	4726	4706	4704	4706	4705	4695	4664	4657	4671	4657	4665	4656	4651	4725	4773	4794	4847	4879	4844	4807	4745	4720	4711	4726	-141	4585	
	22	4494	4558	4571	4552	4538	4542	4538	4477	4440	4519	4570	4575	4564	4517	4600	4480	4505	4561	4572	4631	4646	4706	4667	4560	4558	-141	4417	
	23	4537	4557	4567	4566	4570	4563	4547	4536	4548	4543	4511	4520	4512	4527	4542	4552	4637	4661	4691	4665	4661	4694	4694	4664	4586	-147	4439	
	24	4616	4590	4590	4564	4543	4547	4543	4533	4547	4557	4539	4547	4539	4529	4529	4535	4570	4662	4740	4797	4805	4732	4732	4621	4604	-147	4457	
	25	4583	4577	4577	4555	4537	4541	4537	4537	4561																			
	26										4554	4520	4528	4520	4560	4537	4612	4731	4722	4692	4613	4590	4590	4512	4512	4575	-151	4424	
	27	4512	4559	4559	4542	4529	4533	4529	4425	4345	4361	4350	4463	4559	4546	4546	4512	4539	4596	4541	4489	4452	4566	4566	4606	4509	-154	4355	
	28	4512	4580	4560	4534	4512	4516	4512	4504	4520	4534	4520	4538	4540	4540	4564	4513	4523	4586	4609	4609	4580	4584	4584	4685	4552	-157	4395	
	29	4685	4718	4681	4661	4645	4649	4645	4637	4653	4661	4641	4656	4655	4655	4671	4724	4767	4693	4729	4695	4673	4699	4689	4698	4678	-147	4531	
	30	4698	4707	4690	4663	4641	4645	4641	4638	4659	4671	4664	4663	4646	4646	4597	4597	4619	4646	4707	4786	4786	4809	4774	4713	4680	-136	4544	

$$\text{Corr. for } i \text{ Faht.} = \frac{q}{k} = \frac{\text{sed.}}{1.358}.$$

$$k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.000291 \times \cotan. 7^\circ 40' 2'' \times \left(\frac{6.917}{6.247} \right)^2 = 0.00026501. \quad \text{Adopted Temperature } 80^\circ.$$

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$		
Madras Mean Time.	P.M. 4.41	h.m. 5.41	h.m. 6.41	h.m. 7.41	h.m. 8.41	h.m. 9.41	h.m. 10.41	h.m. 11.41	h.m. 12.41	h.m. 13.41	h.m. 14.41	h.m. 15.41	h.m. 16.41	h.m. 17.41	h.m. 18.41	h.m. 19.41	h.m. 20.41	h.m. 21.41	h.m. 22.41	h.m. 23.41	h.m. 0.41	h.m. 1.41	h.m. 2.41	h.m. 3.41	Means.					
JULY 1853. Vertical Force Magnetometer.	1	4713	4683	4666	4669	4666	4676	4684	4671	4660	4670	4675	4659	4643	4643	4671	4706	4771	4807	4771	4717	4682	4643	4643	4613	4683	-132	4551		
	2	4613	4653	4695	4680	4659	4644	4626	4625	4626																4667	-144	4523		
	3										4636	4641	4641	4641	4636	4670	4708	4750	4753	4783	4737	4670	4651	4637	4641	4625	-134	4491		
	4	4641	4641	4672	4662	4645	4646	4645	4632	4621	4595	4565	4565	4565	4605	4562	4616	4653	4681	4600	4571	4660	4676	4641	4641	4584	-102	4482		
	5	4641	4641	4632	4616	4593	4594	4593	4576	4561	4569	4573	4573	4573	4599	4582	4627	4586	4586	4558	4558	4631	4596	4489	4470	4607	-89	4518		
	6	4520	4625	4625	4642	4652	4653	4652	4638	4626	4628	4626	4600	4575	4575	4546	4521	4577	4555	4555	4555	4676	4624	4624	4690	4550	-92	4458		
	7	4690	4582	4582	4592	4596	4597	4596	4593	4592	4594	4592	4574	4557	4560	4532	4532	4516	4474	4474	4490	4490	4461	4461	4479	4591	-98	4493		
	8	4565	4609	4609	4619	4622	4593	4561	4549	4540	4530	4516	4527	4539	4539	4569	4569	4593	4655	4720	4720	4698	4660	4545	4545	4591				
	9	4489	4559	4595	4597	4593	4592	4588	4587	4588																	4566	-89	4477	
	10											4559	4525	4513	4501	4501	4576	4629	4594	4594	4634	4583	4583	4571	4512	4525	4653	-94	4559	
	11	4549	4575	4595	4598	4595	4607	4617	4614	4614	4616	4614	4593	4572	4551	4594	4636	4691	4767	4826	4826	4814	4754	4786	4676	4576	-103	4473		
	12	4596	4659	4576	4547	4511	4512	4511	4489	4470	4472	4470	4477	4485	4581	4611	4554	4664	4618	4681	4675	4684	4649	4680	4646	4567	-109	4458		
	13	4600	4576	4602	4605	4602	4590	4575	4574	4575	4552	4525	4558	4591	4562	4603	4596	4625	4648	4585	4514	4481	4485	4471	4516	4567	-106	4531		
	14	4584	4623	4593	4596	4592	4593	4592	4561	4532	4563	4589	4589	4589	4549	4572	4621	4670	4713	4735	4770	4770	4770	4755	4755	4637	-108	4505		
	15	4725	4666	4666	4669	4665	4625	4583	4594	4607	4609	4607	4625	4644	4644	4601	4577	4564	4611	4611	4527	4561	4561	4561	4608	4613				
	16	4608	4657	4644	4647	4644	4645	4644	4658	4675																	4623	-119	4504	
	17											4655	4630	4630	4630	4568	4540	4595	4647	4615	4732	4695	4600	4520	4524	4548	4641	-136	4505	
	18	4601	4619	4637	4640	4637	4650	4660	4643	4628	4630	4628	4621	4614	4595	4633	4657	4711	4684	4598	4598	4635	4675	4675	4704	4619	-136	4483		
	19	4660	4619	4630	4628	4620	4621	4620	4620	4622	4632	4637	4614	4591	4591	4614	4614	4640	4693	4693	4686	4630	4546	4486	4554	4644	-137	4507		
	20	4684	4684	4684	4660	4630	4631	4630	4630	4632	4648	4659	4625	4592	4628	4645	4695	4760	4691	4601	4606	4606	4652	4631	4547	4560	-137	4471		
	21	4547	4630	4628	4616	4598	4586	4571	4589	4610	4590	4566	4558	4550	4598	4610	4639	4665	4683	4708	4681	4681	4590	4522	4580	4608	-128	4432		
	22	4612	4612	4609	4583	4550	4551	4550	4520	4492	4510	4523	4523	4523	4535	4577	4544	4565	4605	4564	4580	4580	4612	4612	4500	4560				
	23	4566	4566	4566	4557	4542	4543	4542	4547	4555																	4605	-124	4481	
	24											4551	4542	4542	4542	4505	4551	4582	4618	4682	4733	4788	4754	4754	4700	4700	4577	-113	4464	
	25	4596	4545	4561	4564	4561	4562	4561	4571	4584	4569	4549	4549	4549	4535	4557	4559	4609	4723	4765	4698	4583	4510	4470	4511	4617	-109	4508		
	26	4511	4605	4568	4571	4568	4553	4536	4550	4567	4569	4567	4554	4541	4556	4533	4572	4610	4680	4735	4766	4780	4809	4809	4700	4540	-110	4430		
	27	4641	4629	4616	4609	4596	4597	4596	4551	4508	4545	4578	4568	4559	4534	4563	4500	4451	4537	4550	4550	4401	4326	4433	4520	4575	-108	4467		
	28	4520	4600	4595	4598	4595	4566	4535	4560	4587	4562	4533	4533	4533	4545	4564	4569	4587	4582	4582	4542	4520	4631	4631	4686	4575	-106	4469		
	29	4595	4595	4578	4581	4578	4569	4558	4544	4532	4534	4532	4521	4511	4533	4601	4641	4670	4701	4736	4736	4600	4475	4439	4439	4564	-108	4456		
	30	4527	4588	4562	4559	4550	4554	4556	4567	4581																	4603			
	31											4573	4560	4555	4551	4551	4581	4630	4657	4721	4721	4619	4532	4389	43					

Corr. for 1 Faht. = $\frac{q}{k} = \frac{\text{scd.}}{k} = 1.389$. $k = a \cdot \cotan. \theta \cdot \left(\frac{T}{T'}\right)^2 = 0.0000291 \times \cotan. 7^\circ 40' 26'' \times \left(\frac{6.917}{6.314}\right)^2 = 0.00025919$. Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.	P.M. 4:41	h.m. 5:41	h.m. 6:41	h.m. 7:41	h.m. 8:41	h.m. 9:41	h.m. 10:41	h.m. 11:41	h.m. 12:41	h.m. 13:41	h.m. 14:41	h.m. 15:41	h.m. 16:41	h.m. 17:41	h.m. 18:41	h.m. 19:41	h.m. 20:41	h.m. 21:41	h.m. 22:41	h.m. 23:41	h.m. 0:41	h.m. 1:41	h.m. 2:41	h.m. 3:41				
AUGUST 1853. Vertical Force Magnetometer.				-14.2		5.3		-24.7		-0.1		2.5																
	1	4569	4616	4570	4556	4570	4576	4571	4544	4566	4566	4575	4580	4566	4649	4671	4783	4774	4741	4760	4760	4735	4627	4546	4627	-111	4516	
	2	4567	4594	4599	4579	4587	4592	4587	4562	4586	4595	4604	4615	4621	4555	4606	4662	4686	4686	4719	4648	4623	4623	4582	4603	4612	-111	4501
	3	4630	4630	4649	4600	4579	4569	4549	4520	4541	4541	4541	4564	4582	4516	4557	4539	4562	4509	4447	4502	4524	4588	4588	4627	4561	-107	4454
	4	4588	4588	4593	4579	4593	4606	4609	4568	4577	4577	4591	4600	4585	4585	4609	4630	4630	4611	4584	4536	4474	4520	4458	4578	4578	-114	4464
	5	4528	4585	4585	4531	4505	4535	4555	4518	4531	4540	4549	4547	4541	4541	4596	4585	4600	4646	4620	4584	4543	4543	4490	4465	4553	-114	4439
	6	4520	4560	4546	4542	4567	4572	4567	4530	4543																		
	7										4536	4530	4537	4540	4542	4541	4614	4626	4666	4659	4609	4585	4585	4544	4637	4571	-110	4461
	8	4487	4487	4588	4574	4588	4589	4580	4536	4542	4542	4542	4561	4575	4550	4549	4567	4603	4627	4629	4557	4435	4390	4358	4328	4533	-113	4420
	9	4459	4499	4513	4499	4513	4517	4510	4485	4510	4530	4551	4566	4577	4523	4556	4595	4595	4607	4685	4685	4665	4642	4585	4585	4561	-104	4457
	10	4628	4605	4605	4591	4605	4613	4611	4553	4545	4545	4545	4554	4559	4552	4512	4567	4593	4689	4657	4560	4515	4462	4427	4466	4565	-91	4474
	11	4508	4573	4564	4542	4549	4542	4524	4499	4524	4528	4533	4539	4540	4620	4582	4582	4604	4588	4585	4578	4633	4583	4604	4556	4562	-73	4489
	12	4654	4630	4630	4616	4630	4605	4569	4545	4570	4565	4561	4547	4529	4532	4568	4601	4674	4720	4765	4782	4724	4666	4630	4588	4621	-69	4552
	13	4545	4576	4573	4559	4573	4568	4553	4528	4553																		
	14										4545	4537	4539	4537	4513	4536	4599	4676	4717	4750	4713	4735	4677	4645	4595	4598	-80	4518
	15	4570	4613	4563	4542	4550	4555	4550	4532	4563	4561	4559	4539	4514	4537	4507	4541	4596	4667	4631	4550	4481	4410	4382	4460	4541	-85	4456
	16	4540	4576	4576	4552	4557	4533	4499	4475	4500	4508	4516	4522	4523	4516	4551	4534	4534	4625	4547	4547	4630	4658	4518	4576	4546	-82	4464
	17	4549	4591	4562	4548	4562	4566	4560	4535	4560	4550	4541	4547	4549	4563	4527	4527	4543	4590	4664	4616	4645	4633	4586	4586	4571	-84	4487
	18	4501	4536	4536	4522	4536	4530	4513	4507	4550	4550	4550	4556	4558	4507	4534	4496	4425	4475	4395	4433	4473	4520	4475	4540	4509	-85	4424
	19	4540	4522	4506	4495	4512	4543	4564	4530	4545	4558	4571	4527	4478	4471	4520	4537	4624	4699	4672	4664	4705	4628	4508	4508	4559	-89	4470
	20	4487	4560	4560	4546	4560	4551	4532	4507	4532																		
	21										4512	4493	4532	4566	4562	4522	4544	4611	4690	4625	4467	4369	4393	4352	4415	4520	-96	4424
	22	4556	4595	4585	4534	4512	4517	4512	4500	4537	4521	4506	4541	4571	4541	4524	4557	4620	4716	4756	4717	4641	4561	4533	4460	4567	-88	4479
	23	4460	4556	4556	4542	4556	4564	4562	4545	4577	4577	4577	4584	4587	4524	4557	4568	4599	4677	4740	4665	4694	4694	4612	4554	4589	-92	4497
	24	4554	4581	4604	4569	4563	4568	4563	4540	4566	4566	4566	4576	4582	4597	4565	4569	4594	4637	4600	4520	4370	4409	4490	4602	4556	-99	4457
	25	4565	4565	4550	4553	4585	4589	4583	4548	4563	4563	4563	4577	4587	4544	4554	4686	4732	4805	4724	4658	4604	4653	4677	4610	4610	-100	4510
	26	4610	4579	4617	4603	4617	4610	4593	4570	4596	4603	4611	4585	4554	4540	4588	4686	4794	4862	4966	4714	4700	4639	4677	4676	4650	-103	4547
	27	4621	4635	4695	4649	4632	4612	4582	4566	4599																		
	28										4600	4602	4603	4600	4600	4651	4762	4864	4946	4892	4772	4772	4709	4681	4653	4679	-113	4566
	29	4686	4709	4686	4672	4686	4678	4660	4635	4660	4653	4646	4647	4644	4643	4679	4679	4712	4705	4647	4584	4540	4507	4550	4589	4646	-115	4531
	30	4624	4665	4657	4642	4655	4660	4655	4626	4646	4634	4623	4618	4608	4612	4735	4779	4862	4936	4936	4901	4807	4702	4627	4658	4703	-115	4588
31	4703	4703	4698	4660	4651	4664	4667	4646	4674	4684	4695	4692	4684	4665	4696	4764	4764	4773	4857	4853	4770	4729	4678	4663	4710	-126	4584	
Means.....	4565	4590	4591	4570	4578	4579	4570																					

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{2}{k} = \frac{\text{sec.}}{1.352}.$$

$$k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.000291 \times \cotan. 7^\circ 39' 0'' \times \left(\frac{6.917}{6.240} \right)^2 = 0.00026622$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Göttingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$		
P.M. Madras Mean Time.		h.m. 4:41	h.m. 5:41	h.m. 6:41	h.m. 7:41	h.m. 8:41	h.m. 9:41	h.m. 10:41	h.m. 11:41	h.m. 12:41	h.m. 13:41	h.m. 14:41	h.m. 15:41	h.m. 16:41	h.m. 17:41	h.m. 18:41	h.m. 19:41	h.m. 20:41	h.m. 21:41	h.m. 22:41	h.m. 23:41	h.m. 0:41	h.m. 1:41	h.m. 2:41	h.m. 3:41						
SEPTEMBER 1853. Vertical Force Magnetometer.					0.7		-0.1		-13.2		11.9		3.8																		
		1	4704	4756	4731	4732	4731	4695	4659	4646	4659	4638	4593	4575	4550	4560	4672	5050	4936	4786	4850	5070	4842	4665	4460	4556	4713	-131	4582		
		2	4653	4653	4812	4788	4763	4721	4680	4631	4608	4637	4643	4601	4552	4705	4794	4821	4950	5004	5000	4957	4938	4783	4722	4762	4757	-138	4619		
		3	4762	4772	4703	4679	4654	4622	4590	4564	4564	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		5	4698	4698	4707	4700	4692	4681	4670	4663	4682	4677	4648	4661	4666	4621	4735	4849	4906	5001	5066	5030	4980	4900	4834	4798	4773	-128	4645		
		6	4680	4724	4660	4649	4637	4588	4540	4554	4594	4606	4594	4597	4593	4561	4626	4728	4795	4914	4949	4981	5017	4888	4689	4609	4699	-116	4583		
		7	4609	4647	4645	4628	4610	4610	4581	4579	4581	4559	4579	4592	4592	4623	4660	4761	4910	4941	4988	4907	4813	4732	4683	4685	4685	-99	4586		
		8	4614	4661	4654	4644	4633	4633	4633	4607	4608	4614	4596	4598	4593	4570	4516	4511	4610	4715	4796	4796	4687	4603	4563	4563	4626	-100	4526		
		9	4610	4638	4631	4632	4631	4631	4631	4594	4583	4595	4583	4594	4597	4597	4537	4546	4591	4601	4650	4650	4584	4629	4624	4624	4608	-94	4514		
		10	4669	4644	4615	4608	4600	4577	4555	4542	4555	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		12	4721	4656	4643	4644	4643	4618	4593	4566	4566	4587	4584	4588	4585	4577	4655	4794	4894	4958	4939	4868	4760	4714	4714	4695	4690	-101	4589		
		13	4672	4615	4623	4608	4591	4578	4566	4566	4592	4604	4592	4583	4567	4562	4701	4909	4909	4904	4829	4782	4720	4671	4741	4741	4676	-105	4571		
		14	4682	4637	4637	4638	4637	4615	4593	4567	4567	4579	4567	4566	4557	4557	4647	4795	4836	4802	4753	4697	4619	4537	4537	4579	4633	-106	4527		
		15	4629	4639	4577	4634	4690	4623	4557	4544	4557	4555	4530	4531	4524	4536	4680	4836	4772	4685	4685	4719	4642	4642	4629	4588	4625	-108	4517		
		16	4663	4586	4586	4589	4590	4605	4620	4607	4620	4622	4600	4590	4572	4586	4645	4695	4771	4847	4877	4853	4775	4725	4690	4645	4665	-98	4567		
		17	4628	4652	4615	4616	4615	4590	4566	4553	4566	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		19	4591	4591	4564	4574	4582	4582	4582	4554	4552	4564	4552	4570	4581	4574	4574	4591	4624	4624	4684	4626	4593	4556	4599	4599	4587	-96	4491		
		20	4651	4649	4634	4587	4539	4555	4572	4558	4571	4584	4573	4585	4589	4548	4635	4684	4684	4731	4761	4671	4644	4644	4635	4674	4623	-88	4535		
		21	4652	4623	4591	4592	4591	4568	4546	4533	4546	4554	4539	4568	4589	4515	4497	4580	4707	4746	4775	4753	4710	4698	4609	4578	4611	-92	4519		
		22	4598	4575	4592	4569	4545	4536	4528	4498	4494	4526	4535	4529	4515	4490	4490	4533	4623	4713	4747	4692	4718	4648	4607	4565	4578	-93	4485		
		23	4565	4539	4539	4530	4519	4513	4507	4514	4548	4560	4548	4536	4517	4489	4546	4615	4718	4754	4794	4695	4637	4605	4548	4520	4577	-96	4481		
		24	4545	4569	4569	4551	4532	4514	4496	4483	4496	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		26	4667	4619	4585	4586	4585	4536	4488	4475	4488	4491	4471	4498	4517	4503	4565	4617	4695	4724	4724	4650	4627	4627	4585	4619	4581	-100	4481		
		27	4661	4605	4583	4572	4560	4555	4551	4527	4530	4542	4530	4564	4591	4629	4699	4728	4728	4800	4821	4717	4665	4665	4556	4617	4625	-113	4512		
		28	4626	4584	4561	4524	4486	4486	4486	4447	4435	4474	4490	4505	4512	4482	4522	4561	4630	4725	4779	4699	4672	4629	4569	4540	4559	-106	4453		
		29	4569	4580	4552	4546	4538	4530	4522	4499	4502	4501	4476	4496	4509	4499	4536	4620	4668	4733	4746	4629	4560	4485	4420	4543	4552	-110	4442		
		30	4627	4599	4578	4579	4578	4578	4578	4528	4504	4531	4535	4539	4535	4545	4594	4671	4781	4890	4912	4790	4740	4556	4486	4580	4618	-117	4501		
		Means.....		4644	4635	4623	4615	4607	4590	4574	4554	4560	4574	4565	4570	4567	4562	4612	4701	4756	4803	4829	4794	4736	4674	4625	4630	4642			
		Temp. Corrections		-119	-115	-110	-109	-107	-105	-104	-102	-101	-100	-99	-97	-96	-94	-93	-95	-99	-105	-110	-114	-119	-121	-122	-121		-106		
Corrected Means..		4525	4520	4513	4506	4500	4485	4470	4452	4459	4474	4466	4473	4471	4468	4519	4606	4657	4698	4719	4680	4617	4553	4503	4509	.....	.....	4536			
Mean Hourly Variations from General Monthly Mean.		11	16	23	30	36	51	66	84	77	62	70	63	65	68	17	-70	-121	-162	-183	-144	-81	-17	33	27	.....	$\frac{\Delta Y}{Y}$	.....	-004872		
		0293	0426	0612	0799	0958	1358	1757	2236	2050	1651	1864	1677	1730	1810	04															

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{q}{k} = \frac{\text{sec.}}{k} = 1.355.$$

$$k = \alpha \cdot \cotan. \theta \cdot \left(\frac{T'}{T} \right)^2 = 0.0000291 \times \cotan. 7^\circ 38' 27'' \times \left(\frac{6.917}{6.251} \right)^2 = 0.0002656.$$

Adopted Temperature 80°.

VERTICAL FORCE MAGNETOMETER.

OCTOBER 1853.

OCTOBER 1853.

* The numbers in these Columns are not observed but interpolated for the sake of obtaining the daily Means, and the small figures heading them are the Corrections of interpolations.

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{q}{k} = \frac{\text{sec.}}{1.279}.$$

$$k = \alpha \cdot \cotan. \theta \cdot \left(\frac{T}{T'} \right)^2 = 0.000291 \times \cotan. 7^\circ 38' 57'' \times \left(\frac{6.917}{6.070} \right)^2 = 0.00028136.$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.	P.M. 4:41	5:41	6:41	7:41	8:41	9:41	10:41	11:41	12:41	13:41	14:41	15:41	16:41	17:41	18:41	19:41	20:41	21:41	22:41	23:41	0:41	1:41	2:41	3:41				
NOVEMBER 1853. Vertical Force Magnetometer.				-6.2		-9.8		-10.2		-7.8		19.1																
	1	4616	4598	4586	4599	4625	4595	4584	4555	4546	4528	4525	4565	4566	4610	4611	4710	4783	4841	4838	4761	4721	4652	4586	4613	4634	-16	4618
	2	4613	4569	4569	4566	4576	4566	4576	4558	4560	4552	4560	4569	4539	4510	4558	4597	4652	4652	4679	4623	4596	4586	4586	4553	4582	-10	4572
	3	4585	4552	4585	4568	4563	4553	4563	4560	4578	4547	4531	4550	4531	4498	4542	4589	4630	4689	4642	4581	4552	4510	4542	4598	4568	-6	4562
	4	4568	4595	4595	4577	4571	4561	4571	4555	4560	4552	4560	4552	4524	4531	4621	4695	4695	4663	4688	4631	4582	4540	4584	4584	4588	-9	4579
	5	4602	4560	4569	4556	4556	4546	4556	4552	4569																		
	6										4577	4601	4594	4549	4549	4528	4528	4574	4647	4770	4820	4782	4734	4682	4651	4611	5	4616
	7	4617	4617	4577	4571	4577	4567	4577	4573	4589	4573	4572	4576	4541	4562	4528	4447	4471	4530	4517	4474	4524	4582	4582	4556	4554	24	4578
	8	4610	4549	4565	4538	4523	4513	4523	4522	4541	4533	4541	4544	4509	4507	4470	4532	4627	4677	4614	4568	4527	4628	4628	4552	4556	19	4575
	9	4552	4606	4606	4554	4514	4499	4504	4494	4504	4479	4469	4488	4469	4495	4518	4511	4592	4571	4685	4630	4575	4580	4540	4502	4539	15	4554
	10	4515	4515	4467	4473	4491	4481	4491	4473	4475	4459	4458	4477	4458	4445	4510	4494	4539	4584	4543	4579	4556	4556	4528	4461	4501	2	4503
	11	4506	4506	4483	4465	4460	4450	4460	4458	4476	4451	4442	4466	4451	4442	4442	4457	4527	4621	4594	4623	4592	4618	4618	4572	4508	0	4508
	12	4522	4524	4511	4500	4501	4489	4497	4487	4497																		
	13										4487	4493	4505	4479	4451	4453	4514	4594	4610	4560	4564	4576	4504	4441	4441	4508	-8	4500
	14	4479	4479	4454	4448	4454	4444	4454	4448	4463	4459	4471	4471	4432	4436	4436	4517	4597	4556	4612	4634	4667	4558	4591	4525	4504	-7	4497
	15	4503	4525	4511	4505	4511	4484	4477	4470	4484	4462	4455	4472	4450	4417	4445	4478	4517	4611	4524	4557	4557	4534	4494	4475	4497	-17	4480
	16	4491	4455	4455	4437	4431	4421	4431	4424	4437	4446	4470	4486	4464	4470	4451	4486	4512	4550	4550	4521	4420	4475	4445	4489	4467	-26	4441
	17	4515	4515	4451	4457	4476	4466	4476	4472	4488	4464	4455	4474	4455	4494	4430	4507	4599	4630	4576	4598	4598	4615	4546	4520	4512	-33	4479
	18	4541	4541	4515	4508	4514	4480	4465	4455	4465	4463	4477	4498	4480	4495	4388	4361	4361	4459	4557	4596	4596	4561	4559	4519	4494	-34	4460
	19	4542	4512	4507	4488	4481	4468	4474	4464	4474																		
	20										4458	4458	4477	4458	4445	4457	4453	4525	4621	4760	4740	4689	4689	4599	4570	4534	-28	4506
	21	4570	4548	4548	4519	4503	4503	4523	4502	4502	4471	4455	4501	4508	4463	4484	4499	4529	4574	4564	4564	4555	4617	4600	4640	4531	-21	4510
	22	4667	4559	4516	4514	4525	4515	4525	4529	4554	4497	4455	4505	4516	4516	4486	4524	4568	4631	4596	4630	4630	4607	4575	4530	4549	-9	4540
	23	4552	4552	4507	4518	4541	4531	4541	4527	4533	4525	4533	4566	4561	4514	4531	4521	4587	4635	4701	4701	4770	4713	4661	4604	4580	-5	4575
	24	4604	4575	4598	4574	4563	4539	4535	4525	4536	4528	4536	4563	4552	4520	4557	4541	4611	4660	4712	4725	4675	4653	4741	4683	4596	-9	4587
	25	4567	4567	4545	4544	4556	4532	4527	4520	4533	4538	4559	4557	4517	4538	4520	4537	4580	4639	4700	4718	4751	4753	4704	4610	4588	-8	4580
	26	4570	4591	4560	4554	4561	4551	4561	4558	4575																		
	27										4566	4572	4577	4544	4544	4559	4594	4548	4609	4635	4700	4667	4620	4586	4566	4582	-13	4569
	28	4615	4587	4592	4572	4565	4555	4565	4557	4569	4552	4551	4597	4604	4527	4577	4573	4645	4733	4774	4822	4850	4749	4653	4575	4623	-11	4612
	29	4565	4600	4586	4557	4540	4545	4570	4560	4571	4575	4595	4600	4567	4567	4543	4599	4660	4725	4821	4829	4805	4700	4579	4521	4616	-7	4609
	30	4571	4564	4564	4561	4570	4566	4581	4580	4600	4592	4600	4597	4555	4561	4525	4574	4641	4699	4726	4758	4729	4677	4613	4613	4609	-8	4601
Means.....	4564	4552	4539	4528	4529	4516	4523	4515	4526	4513	4515	4532	4511	4504	4503	4529	4583	4633	4651	4654	4638	4617	4585	4559	4555			
Temp. Corrections	-17	-13	-10	-8	-8	-6	-5	-4	-4	-3	-3	-2	-1	0	0	-2	-7	-11	-13	-15	-17	-18	-18	-18	....	-8		
Corrected Means..	4547	4539	4529	4520	4521	4510	4518	4511	4522	4510	4512	4530	4510	4504	4503	4527	4576	4622	4									

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{q}{k} = \frac{\text{scd.}}{1.269}.$$

$$k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cotan. 7^\circ 39' 53'' \times \left(\frac{6.917}{6.038} \right)^2 = 0.00028377.$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	$\frac{\Delta Y}{Y}$	
Madras Mean Time.	P.M. 4.41	5.41	6.41	7.41	8.41	9.41	10.41	11.41	12.41	13.41	14.41	15.41	16.41	17.41	18.41	19.41	20.41	21.41	22.41	23.41	0.41	1.41	2.41	3.41					
DECEMBER 1853. Vertical Force Magnetometer.				4.4		8.5		-16.1		-2.2		7.6																	
	1	4586	4619	4602	4604	4597	4596	4578	4571	4597	4582	4572	4566	4545	4545	4555	4555	4615	4596	4596	4700	4664	4542	4542	4588	4588	- 5	4583	
	2	4624	4628	4628	4616	4595	4606	4600	4563	4558	4556	4558	4579	4584	4584	4552	4516	4564	4625	4717	4696	4744	4706	4665	4637	4613	- 2	4611	
	3	4596	4596	4631	4635	4631	4624	4600	4592	4616																			
	4										4621	4630	4614	4582	4582	4555	4599	4646	4740	4799	4782	4736	4667	4667	4622	4640	1	4641	
	5	4586	4630	4630	4634	4630	4622	4598	4582	4598	4577	4560	4583	4591	4581	4594	4633	4681	4804	4804	4740	4784	4762	4694	4666	4649	5	4654	
	6	4719	4906	4734	4787	4832	4741	4634	4651	4700	4685	4674	4647	4605	4596	4622	4608	4664	4708	4588	4548	4521	4545	4625	4625	4665	4	4669	
	7	4671	4588	4588	4592	4588	4613	4621	4608	4628	4605	4586	4594	4586	4576	4609	4609	4681	4739	4714	4585	4520	4629	4662	4630	4618	6	4624	
	8	4630	4658	4628	4622	4608	4616	4608	4600	4624	4600	4580	4595	4595	4595	4567	4592	4655	4685	4686	4719	4719	4586	4624	4608	4625	5	4630	
	9	4635	4616	4616	4620	4616	4609	4585	4553	4553	4573	4598	4601	4588	4563	4563	4604	4629	4629	4643	4699	4699	4724	4634	4646	4617	0	4617	
	10	4615	4611	4611	4603	4586	4594	4586	4557	4561																			
	11										4577	4597	4596	4579	4579	4593	4593	4631	4695	4719	4723	4709	4768	4729	4682	4629	2	4631	
	12	4682	4628	4627	4625	4615	4603	4574	4566	4590	4588	4590	4597	4588	4511	4556	4527	4550	4579	4646	4825	4957	4822	4741	4663	4635	6	4641	
	13	4829	4759	4797	4718	4630	4595	4543	4565	4619	4626	4638	4618	4582	4569	4598	4566	4566	4589	4589	4630	4737	4818	4797	4722	4654	12	4666	
	14	4683	4683	4670	4654	4630	4626	4605	4586	4599	4597	4599	4601	4587	4567	4566	4613	4629	4702	4739	4739	4855	4800	4708	4669	4654	14	4668	
	15	4630	4639	4654	4658	4654	4650	4630	4614	4630	4610	4595	4640	4669	4609	4628	4570	4586	4586	4569	4603	4630	4651	4704	4704	4630	17	4647	
	16	4684	4694	4705	4684	4654	4650	4629	4625	4653	4651	4653	4655	4641	4636	4638	4592	4623	4623	4647	4634	4665	4750	4751	4751	4662	14	4676	
	17	4724	4729	4729	4697	4657	4665	4657	4623	4621																			
	18										4641	4665	4669	4658	4625	4642	4597	4597	4629	4691	4780	4917	4917	4832	4727	4695	13	4708	
	19	4661	4689	4689	4683	4668	4666	4647	4631	4647	4638	4634	4642	4634	4608	4588	4549	4586	4586	4657	4687	4772	4864	4846	4719	4666	15	4681	
	20	4681	4702	4668	4672	4668	4660	4635	4629	4655	4653	4655	4629	4588	4609	4558	4520	4535	4477	4527	4527	4672	4766	4711	4711	4630	19	4649	
	21	4670	4812	4724	4716	4700	4697	4678	4599	4553	4619	4690	4670	4634	4627	4636	4644	4685	4690	4691	4642	4652	4723	4748	4687	4674	24	4698	
	22	4723	4664	4662	4657	4643	4646	4632	4632	4665	4663	4665	4658	4636	4651	4626	4638	4677	4742	4773	4773	4732	4699	4724	4672	4677	23	4700	
	23	4616	4621	4621	4632	4634	4642	4634	4591	4580	4578	4580	4606	4616	4598	4611	4581	4634	4651	4616	4586	4586	4621	4616	4646	4612	22	4684	
	24	4665	4626	4599	4597	4586	4581	4560	4544	4560																			
	25										4579	4603	4611	4603	4601	4600	4569	4614	4659	4659	4664	4652	4681	4783	4860	4627	25	4652	
	26	4827	4800	4774	4773	4763	4771	4763	4753	4775	4765	4759	4767	4759	4732	4745	4745	4774	4811	4811	4846	4884	4884	4822	4803	4788	22	4810	
	27	4845	4803	4803	4801	4790	4773	4740	4701	4694	4671	4653	4714	4759	4759	4755	4774	4825	4907	4937	4937	4947	4901	4852	4820	4798	13	4811	
	28	4820	4848	4821	4825	4821	4799	4761	4756	4785	4783	4785	4776	4751	4751	4738	4759	4832	4878	4908	4805	4862	4927	4877	4820	4812	10	4822	
	29	4820	4757	4757	4774	4783	4810	4820	4775	4762	4760	4762	4764	4750	4754	4771	4771	4868	4899	4899	4838	4882	4861	4861	4822	4805	14	4819	
	30	4848	4810	4792	4796	4792	4806	4804	4795	4819	4793	4772	4780	4772	4772	4772	4805	4856	4925	4925	4837	4785	4654	4697	4776	4799	11	4810	
Means.....	4695	4697	4683	4680	4668	4664	4643	4625	4640	4638	4641	4645	4634	4622	4625	4620	4662	4698	4713	4713	4742	4741	4727	4703	4672				
Temp. Corrections	-1	4	8	11	12	13	15	16	17	18	19	20	22	24	27	24	16	9	4	1	-1	-3	-5	-4	.....	11			
Corrected Means..	4694	4701	4691	4691	4680	4677	4658	4641	4657	4656	4660	4665	4656	4646	4652	4644	4678	4707	4717	4714	4741	4738	4722	4699			4683		
Mean Hourly Variations from General Monthly Mean.	-11	-18	-8	-8	3	6	25	42	26	27	23	18	27	37	31	39	5	-24	-34	-31	-58	-55	-39	-16	.....	$\frac{\Delta Y}{Y} =$	.....	.001646	
	-0312	-0511	-0227	-0227	008																								

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 19TH JANUARY 1853, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,										COMMENCING AT 10 P. M. OF 19TH JANUARY 1853, GOTTINGEN MEAN TIME.																																				
										WEDNESDAY, 19TH JANUARY, 1853.										THURSDAY, 20TH JANUARY, 1853.																										
Gottingen Mean Time.										p.m.										Noon																										
										10	11	12	13	14	15	16	17	18	19	20	21	22	23	1	2	3	4	5	6	7	8	9														
MAGNETICAL OBSERVATIONS.	DECLINATION.	m.	0	5	10	15	20	25	30	35	40	45	50	55	0	5	10	15	20	25	30	35	40	45	50	55	0	5	10	15	20	25	30	35	40	45	50	55								
		s.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
		scd.	1690	1690	1683	1683	1678	1676	1692	1710	1709	1710	1709	1712	1710	1690	1688	1690	1690	1692	1691	1691	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689							
		scd.	1690	1690	1683	1683	1678	1676	1692	1710	1709	1710	1709	1712	1710	1690	1688	1690	1690	1692	1691	1691	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689							
		scd.	1690	1690	1683	1683	1678	1676	1692	1710	1709	1710	1709	1712	1710	1690	1688	1690	1690	1692	1691	1691	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689							
		scd.	1690	1690	1683	1683	1678	1676	1692	1710	1709	1710	1709	1712	1710	1690	1688	1690	1690	1692	1691	1691	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689						
		scd.	1690	1690	1683	1683	1678	1676	1692	1710	1709	1710	1709	1712	1710	1690	1688	1690	1690	1692	1691	1691	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689							
		scd.	1690	1690	1683	1683	1678	1676	1692	1710	1709	1710	1709	1712	1710	1690	1688	1690	1690	1692	1691	1691	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689							
		scd.	1690	1690	1683	1683	1678	1676	1692	1710	1709	1710	1709	1712	1710	1690	1688	1690	1690	1692	1691	1691	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689						
		scd.	1690	1690	1683	1683	1678	1676	1692	1710	1709	1710	1709	1712	1710	1690	1688	1690	1690	1692	1691	1691	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689	1689						
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m.	2	7	12	17	22	27	32	37	42	47	52	57	0	5	10	15	20	25	30	35	40	45	50	55	0	5	10	15	20	25	30	35	40	45	50	55								
		s.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
		scd.	1070	1070	1057	1042	1027	1005	965	959	924	922	902	932	940	966	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017
		scd.	1070	1070	1057	1042	1027	1005	965	959	924	922	902	932	940	966	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017
		scd.	1070	1070	1057	1042	1027	1005	965	959	924	922	902	932	940	966	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017
		scd.	1070	1070	1057	1042	1027	1005	965	959	924	922	902	932	940	966	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017
		scd.	1070	1070	1057	1042	1027	1005	965	959	924	922	902	932	940	966	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017
		scd.	1070	1070	1057	1042	1027	1005	965	959	924	922	902	932	940	966	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017
		scd.	1070	1070	1057	1042	1027	1005	965	959	924	922	902	932	940	966	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017
		scd.	1070	1070	1057	1042	1027	1005	965	959	924	922	902	932	940	966	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017	988	1008	1022	1034	1039	1044	1040	1032	1027	1017
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m.	3	8	13	18	23	28	33	38	43	48	53	58	0	5	10	15	20	25	30	35	40	45	50	55	0	5	10	15	20	25	30	35	40	45	50	55								
		s.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		scd.	4147	4147	4051	4069	4078	4039	4059	4065	3916	3909	4015	4085	4133	4206	4229	4142	4043	4044	4028	4008	3968	3959	3928	3920	4229	4142	4043	4044	4028	4008	3968	3959	3928	3920	4229	4142	4043	4044	4028	4008	3968	3959	3928	3920
		scd.	4147	4147	4051	4069	4078	4039	4059	4065	3916	3909	4015	4085	4133	4206	4229	4142	4043	4044	4028	4008	3968	3959	3928	3920	4229	4142	4043	4044	4028	4008	3968	3959	3928	3920	4229	4142	4043	4044	4028	4008	3968	3959	3928	3920
		scd.	4147	4147	4051	4069	4078	4039	4059	4065	3916	3909	4015																																	

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 25TH FEBRUARY 1853, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. OF 25TH FEBRUARY 1853, GOTTINGEN MEAN TIME.																																		
Gottingen Mean Time.		FRIDAY, 25TH FEBRUARY, 1853.														SATURDAY, 26TH FEBRUARY, 1853.																				
		p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9										
MAGNETICAL OBSERVATIONS.	DECLINATION.	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.		
		s.	1685	1684	1680	1680	1670	1661	1659	1658	1650	1659	1667	1670	1680	1690	1691	1675	1668	1671	1672	1674	1675	1680	1680	1681	1681	1681	1681	1681	1681	1681	1681	1681	1681	
		0	0	84	84	80	80	70	60	59	57	51	60	68	71	80	90	90	74	68	71	72	73	75	80	80	81	81	81	81	81	81	81	81	81	81
		5	0	83	84	80	80	70	60	59	54	51	60	68	71	82	90	90	72	69	71	72	72	75	80	80	81	81	81	81	81	81	81	81	81	
		10	0	83	85	80	80	68	59	59	53	51	61	68	73	83	91	88	71	69	71	72	73	76	80	80	81	81	81	81	81	81	81	81	81	
		15	0	83	85	80	80	67	58	59	53	52	61	68	75	83	92	87	69	70	72	72	74	76	80	80	81	81	81	81	81	81	81	81	81	
		20	0	85	85	80	80	62	57	59	52	55	62	68	77	84	93	85	68	70	72	72	74	77	80	81	81	81	81	81	81	81	81	81	81	
		25	0	85	84	80	80	62	57	59	52	55	63	68	78	84	95	83	66	70	72	72	74	77	80	81	81	81	81	81	81	81	81	81	81	
		30	0	85	83	80	80	62	57	58	52	55	64	68	78	86	95	82	66	70	72	72	75	77	80	81	81	81	81	81	81	81	81	81	81	
		35	0	85	82	80	78	60	58	58	52	56	64	68	78	86	96	81	67	70	72	73	75	78	80	81	81	81	81	81	81	81	81	81	81	81
	40	0	84	80	80	77	61	59	58	51	57	64	69	79	87	94	80	67	71	72	74	75	78	80	80	80	80	80	80	80	80	80	80	80	80	
	45	0	83	80	80	75	61	59	57	51	58	66	69	80	88	93	79	67	71	72	75	75	78	80	80	80	80	80	80	80	80	80	80	80	80	
	50	0	83	80	80	73	61	59	59	50	58	67	70	80	89	93	77	67	71	72	75	75	79	80	80	80	80	80	80	80	80	80	80	80	80	
	55	0																																		
	HORIZONTAL FORCE.	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
		s.	942	960	960	963	940	891	826	782	770	780	809	850	896	920	929	922	940	970	990	973	974	986	980	990	990	990	990	990	990	990	990	990	990	
		2	0	942	960	960	963	940	888	823	780	770	783	810	853	899	920	929	920	940	981	990	971	974	987	980	990	990	990	990	990	990	990	990	990	990
		7	0	946	960	960	964	940	882	820	780	773	787	815	857	900	922	928	920	947	984	987	970	974	988	980	990	990	990	990	990	990	990	990	990	990
		12	0	950	960	960	962	936	877	814	780	773	789	817	861	904	924	928	920	952	987	987	972	977	988	980	991	991	991	991	991	991	991	991	991	991
		17	0	950	960	960	960	933	870	810	780	773	789	822	866	907	926	928	920	952	984	988	972	977	988	982	991	991	991	991	991	991	991	991	991	991
22		0	955	960	962	960	926	864	809	778	774	792	816	870	909	927	928	924	954	984	985	971	978	987	984	991	991	991	991	991	991	991	991	991	991	
27		0	960	958	962	956	922	859	806	778	772	792	814	874	910	929	926	927	955	988	983	971	979	985	987	991	991	991	991	991	991	991	991	991	991	
32		0	960	958	965	954	915	854	804	776	772	794	830	877	912	930	925	930	957	989	980	972	979	981	988	991	991	991	991	991	991	991	991	991	991	
37		0	962	958	965	950	910	848	801	777	772	795	841	882	914	929	923	931	959	991	979	973	980	982	988	991	991	991	991	991	991	991	991	991	991	991
42	0	962	960	965	950	911	840	796	776	773	797	840	885	918	928	923	935	962	991	979	973	984	981	989	992	992	992	992	992	992	992	992	992	992	992	
47	0	962	960	965	947	903	835	790	773	775	800	846	890	919	928	923	939	966	991	976	974	986	981	989	993	993	993	993	993	993	993	993	993	993	993	
52	0	962	960	964	943	900	830	789	772	778	802	848	892	919	927	922	939	968	991	975	974	986	980	989	993	993	993	993	993	993	993	993	993	993	993	
57	0																																			
VERTICAL FORCE.	Faht...	80.5	80.5	80.5	80.6	80.2	79.9	80.0	80.2	80.6	81.0	81.2	81.3	81.5	81.7	81.8	81.8	81.8	81.9	81.9	81.8	81.8	81.9	81.9	81.9	81.8	81.8	81.8	81.9	81.9	81.9	81.9	81.9	81.9	81.9	
	Attached Thermometer...																																			
	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.		
	s.	3068	3095	3062	3060	3035	3014	3005	3062	3112	3105	3073	3021	3045	3052	3063	3079	3065	3316	3323	3318	3285	3277	3268	3268	3268	3268	3268	3268	3268	3268	3268	3268	3268		
	3	0	68	95	62	60	35	14	05	62	12	22	73	21	45	52	63	79	95	16	23	18	85	77	68	68	68	68	68	68	68	68	68	68	68	
	8	0	68	95	62	60	35	14	05	72	12	22	73	21	45	52	63	79	3152	16	23	18	85	77	68	68	68	68	68	68	68	68	68	68	68	
	13	0	68	73	62	60	35	14	12	72	12	3068	73	51	45	52	87	79	52	16	23	18	89	77	68	68	68	68	68	68	68	68	68	68	68	
	18	0	68	73	62	60	35	14	12	72	12	68	38	51	45	52	87	79	52	16	23	18	89	77	68	68	68	68	68	68	68	68	68	68	68	
	23	0	68	73	62	60	15	2993	12	72	05	68	38	51	32	52	87	79	52	16	23	18	89	77	68	68	68	68	68	68	68	68	68	68	68	68
	28	0	68	65	62	60	15	90	12	72	05	70	38	29	32	52	3103	79	52	16	17	18	89	77	68	68	68	68	68	68	68	68	68	68	68	68
33	0	70	65	62	60	15	90	30	72	05	70	21	29	32	52	03	79	59	16	17	18	89	77	68	57	57	57	57	57	57	57	57	57	57		
38	0	70	65	62	45	16	91	30	97	05	72	21	20	32	40	03	79	59	16	17	22	89	77	68	57	57	57	57	57	57	57	57	57	57	57	
43	0	70	65	62	45	26	91	30	97	3092	72	45	20	32	40	03	79	3301	16	17	22	89	77	68	57	57	57	57	57	57	57	57	57	57	57	
48	0	70	65	62	45	26	91	43	97	90	72	45	20	32	40	03	79	01	16	18	22	89	77	68	57	57	57	57	57	57	57	57	57	57	57	
53	0	70	65	62	45	26	91	43	97	90	72	45	20	32	40	03	79	01	16	18	22	89	77	68	57	57	57	57	57	57	57	57	57	57	57	
58	0	70	65	62	45	19	3000	55	75	90	72	45	20	32	40	03	79	01	16	18	22	89	77	68	57	57	57	57	57	57	57	57	57	57	57	
INDUCTION INCLINO-METER.	Faht...	80.3	80.3	80.2	80.0	79.7	79.7	80.1	80.4	80.7	80.8	81.0	81.2	81.4	81.6	81.7	81.7	81.5	81.6	81.5	81.5	81.5	81.4	81.3	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2		
	Attached Thermometer...																																			
	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.		
	s.	1650	1650	1650	1648	1637	1632	1633	1632	1629	1633	1640	1																							

COMMENCING AT 10 P. M. OF 23RD MARCH 1853, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. OF 23RD MARCH 1853, GOTTINGEN MEAN TIME.																							
		WEDNESDAY, 23RD MARCH, 1853.												THURSDAY, 24TH MARCH, 1853.											
Gottingen Mean Time.		p.m.												Noon.											
		10	11	12	13	14	15	16	17	18	19	20	21	22	23	1	2	3	4	5	6	7	8	9	
DECLINATION.	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	0	1690	1684	1686	1686	1700	1718	1731	1729	1698	1671	1655	1660	1680	1694	1700	1688	1683	1687	1690	1690	1689	1690	1692	1695
	5	90	84	87	87	02	19	32	25	93	70	52	62	82	96	1699	87	83	88	90	90	89	90	92	96
	10	90	84	86	88	03	20	32	24	90	70	50	64	85	98	99	86	83	88	91	90	89	91	92	96
	15	90	85	86	89	06	22	31	23	89	70	50	67	88	98	98	85	83	88	91	90	89	92	92	96
	20	90	85	87	91	08	23	32	21	89	70	50	68	88	99	96	87	83	88	91	90	89	92	93	96
	25	90	85	86	92	09	25	33	18	86	69	50	68	89	99	95	87	83	88	91	90	90	92	93	96
	30	88	86	86	92	09	27	33	18	82	65	50	70	90	1700	94	88	82	88	92	90	90	92	93	96
	35	88	87	86	94	10	28	32	15	80	62	50	70	92	00	92	88	82	88	92	90	92	92	93	97
	40	86	87	85	97	11	29	32	11	80	60	50	72	92	00	91	85	82	88	92	89	94	92	94	97
45	85	87	86	98	11	29	31	08	80	59	50	75	92	00	90	84	82	88	93	89	93	92	94	97	
50	85	88	85	98	14	29	31	03	77	55	55	78	95	01	90	83	83	88	90	89	91	92	94	97	
55	84	87	86	1700	17	30	30	00	75	55	58	80	94	01	90	83	83	89	90	89	90	92	95	97	
HORIZONTAL FORCE.	m.	1067	1068	1067	1063	1037	990	910	850	848	892	970	1055	1080	1109	1139	1180	1166	1148	1170	1166	1161	1150	1140	1133
	2	67	69	67	62	32	985	905	842	850	898	967	60	86	10	41	82	63	50	70	66	61	49	40	33
	7	67	69	65	62	30	982	902	842	850	905	968	63	89	12	47	82	61	50	69	64	61	48	40	32
	12	67	70	64	60	26	979	900	845	854	912	968	70	95	22	50	85	60	50	68	64	61	48	39	32
	17	67	70	65	60	23	970	890	845	853	923	975	73	1100	25	59	85	60	56	68	62	59	47	39	33
	22	67	70	65	60	23	962	875	850	855	937	979	77	00	30	60	83	55	59	68	62	59	46	38	33
	27	68	68	65	60	23	950	868	853	860	940	988	80	06	30	63	82	50	59	67	62	59	45	38	33
	32	68	66	65	58	20	950	864	850	866	940	996	82	02	30	67	79	51	55	63	62	58	45	38	33
	37	67	68	67	55	15	945	858	849	867	942	1005	80	00	31	69	75	49	56	65	62	56	45	38	34
	42	65	67	68	51	12	940	853	846	870	940	17	80	00	32	73	72	49	60	65	62	54	44	36	35
47	65	68	68	48	04	934	850	847	878	956	33	80	03	32	77	69	47	69	62	62	52	43	35	35	
52	66	68	64	42	00	925	850	848	880	962	46	80	06	32	77	69	47	69	64	62	50	42	34	36	
57																									
	Faht...	84.2	84.3	84.4	84.5	84.0	84.0	84.1	84.3	84.5	84.9	85.1	85.3	85.6	85.8	85.8	85.8	85.7	85.8	85.9	85.9	85.9	86.0	85.8	85.7
	Attached Thermometer...																								
VERTICAL FORCE.	m.	5288	5101	5090	5030	5043	5100	5169	5295	5424	5404	5347	5275	5197	5176	5181	5167	5105	5070	5101	5081	5048	5278	5272	5272
	3	88	01	90	30	43	00	69	5324	24	04	47	75	97	76	81	67	05	70	01	81	48	78	72	72
	8	88	5086	86	30	64	00	69	24	24	5374	65	50	97	76	81	67	05	70	01	81	48	78	72	72
	13	88	90	86	13	64	14	69	24	24	74	65	50	62	55	81	67	05	70	01	81	48	78	72	72
	18	88	88	86	13	64	14	5200	75	24	74	71	42	62	55	81	67	05	70	01	81	48	78	72	72
	23	88	88	86	29	64	14	13	75	25	74	71	42	48	55	81	67	5079	70	01	81	48	78	72	72
	28	5090	88	34	24	64	14	13	5429	25	35	44	05	48	55	81	67	79	70	5062	81	48	78	72	72
	33	90	88	30	24	64	20	13	29	25	35	44	05	72	55	81	67	79	70	62	81	48	78	72	72
	38	98	84	26	30	96	22	13	29	25	35	44	05	72	55	81	67	79	70	62	81	48	78	72	72
	43	92	89	29	30	96	22	54	29	25	35	44	5192	72	55	81	67	70	70	62	81	5270	78	72	72
48	5101	89	29	30	5108	22	54	29	25	22	20	92	72	55	81	40	70	89	62	81	70	78	72	72	
53	01	89	21	30	08	69	54	37	25	30	5296	92	72	55	81	40	70	89	62	81	70	78	72	72	
58																									
	Faht...	84.1	84.4	84.2	84.0	83.6	84.0	84.5	84.7	85.1	85.5	85.7	86.0	86.1	86.2	86.2	85.9	85.5	85.5	85.4	85.4	85.3	85.3	85.2	85.0
	Attached Thermometer...																								
INDUCTION INCLINO-METER.	m.	1620	1618	1620	1619	1628	1643	1651	1648	1625	1610	1599	1602	1617	1628	1630	1620	1619	1621	1626	1625	1623	1626	1628	1628
	0	20	18	20	19	31	45	51	45	22	10	97	07	17	28	30	20	19	22	26	25	23	26	28	28
	5	20	18	20	20	32	46	51	45	20	10	92	10	18	29	30	20	19	22	27	24	23	26	28	28
	10	20	19	20	20	34	47	52	44	20	10	90	10	19	29	30	20	19	22	27	24	23	26	28	28
	15	20	19	20	21	35	48	52	48	20	10	90	10	20	30	29	21	19	22	27	24	23	26	27	27
	20	20	19	20	22	38	49	52	44	19	08	92	10	20	30	27	21	19	24	28	24	23	25	27	27
	25	21	20	20	22	39	49	52	40	14	02	92	10	21	30	26	21	19	24	28	24	23	25	27	27
	30	21	20	20	23	39	49	51	38	13	00	92	10	22	30	24	21	19	24	28	22	24	25	27	27
	35	20	20	19	24	39	50	50	36	12	00	93	12	22	30	22	20	19	24	28	22	25	26	27	28
	40	20	20	19	25	40	50	50	31	10	00	93	12	25	30	21	20	19	25	28	22	25	27	27	28
45	19	20	19	26	42	50	50	30	10	00	98	14	25	30	21	20	19	25	25	22	25	27	28	28	
50	18	20	19	28	43	50	50	28	10	00	1600	16	26	30	20	20	19	25	24	22	25	27	28	28	
55																									
	Faht...	83.5	83.4	83.3	83.0	82.1	82.7	83.6	84.2	84.7	85.2	85.8	86.0	86.3	86.3	86.1	85.7	85.2	85.0	85.0	85.0	85.0	84.8	84.8	84.6
	Attached Thermometer...																								
METEOROLOGICAL OBSERVATIONS.	Barometer (uncorrected) = 29.0 + ..	1.015	1.000	1.007	1.023	1.028	1.058	1.080	1.081	1.072	1.050	1.020	0.998	0.980	0.971	0.967	0.976	0.988	1.014	1.040	1.058	1.056	1.052	1.028	1.008
	Attached Thermometer.....	81.5	82.0	81.5	81.0	79.0	80.0	81.0	82.5	84.0	85.0	85.0	86.0	86.0	86.5	86.0	85.5	84.0	84.0	83.5	83.5	83.5	83.0	82.5	82.0
	Dry Thermometer (standard).....	80.0	78.2	77.4	77.1	78.0	81.4	85.4	87.2	89.2	90.1	90.7	91.2	91.3	90.8	90.0	88.1	85.5	84.5	84.0	83.6	83.1	82.5	82.2	81.4
	Wet Do.	77.0	75.7	74.7	74.6	75.8	78.0	80.0	82.1	80.5	79.6	80.0	80.8	80.7	80.0	80.2	80.0	78.9	78.2	78.2	78.3	78.2	78.0	78.0	77.4
	Cloudy sky in 8ths.....	2	0	1	2	1	1	4	3	2	2	3	2	1	1	1	0	0	0	0	0	0	0	1	0
	Wind. Force lbs.....	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
	Directions o	90	90	22	22	22	270	281	135	90	90	79	112	112	112	112	112	101	90	101	90	112	112	112	112
	REMARKS ON THE WEATHER	cr-hz, cr-cu.....	clear.....	sc-cu, cr-hz.....	sc-cu, lt-hz.....	cu, cr-hz.....	do.....	do.....	do.....	do.....	do.....														

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 20TH APRIL 1853, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. OF 20TH APRIL 1853, GOTTINGEN MEAN TIME.																									
Gottingen Mean Time.		WEDNESDAY, 20TH APRIL, 1853.															THURSDAY, 21ST APRIL, 1853.										
		p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9	
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	0	0	1672	1676	1672	1675	1687	1697	1691	1678	1654	1636	1622	1625	1630	1638	1640	1640	1654	1654	1653	1656	1660	1664	1670	1670	
	5	0	72	74	72	75	87	98	89	76	51	34	21	26	31	38	40	40	55	54	53	56	60	64	70	70	
	10	0	75	73	73	76	90	97	88	74	50	33	21	26	31	39	40	41	55	54	53	56	60	64	70	70	
	15	0	75	72	73	76	89	97	88	72	49	30	21	27	31	40	40	41	56	54	53	57	60	66	70	70	
	20	0	75	72	73	76	89	97	86	71	48	28	21	27	31	40	40	41	58	54	53	58	60	66	70	70	
	25	0	79	72	73	77	88	97	82	70	46	27	21	27	32	40	40	42	56	54	53	58	61	68	70	70	
	30	0	79	72	73	79	88	93	81	69	45	25	22	27	32	40	40	42	55	54	53	58	61	70	70	70	
	35	0	79	71	72	80	89	92	81	65	43	24	22	28	34	40	40	42	55	54	54	58	62	70	70	70	
	40	0	80	72	72	81	90	92	81	63	42	23	23	28	35	40	40	42	55	54	55	58	62	70	70	70	
	45	0	80	74	73	81	92	91	80	60	40	23	23	29	35	40	40	45	55	54	54	59	63	70	70	70	
	50	0	79	73	73	82	92	91	80	60	39	23	23	29	37	40	40	47	55	54	54	59	63	70	70	70	
	55	0	79	73	73	82	95	90	80	59	38	22	24	29	37	40	40	50	55	54	55	59	63	70	70	70	
HORIZONTAL FORCE.	m.	s.	1094	1094	1092	1102	1080	990	930	880	830	880	930	980	1018	1050	1087	1089	1117	1102	1120	1117	1123	1122	1110	1100	
	2	0	90	90	90	06	79	987	918	880	840	880	934	980	20	54	88	91	18	00	20	17	21	22	10	00	
	7	0	90	92	90	09	60	1010	910	875	842	882	939	984	27	56	89	93	18	00	21	17	20	24	12	00	
	12	0	82	90	90	12	60	15	910	870	851	889	941	989	30	59	89	94	16	00	19	17	19	20	12	03	
	17	0	82	91	90	12	60	08	895	870	854	892	946	990	30	61	89	95	13	00	17	19	19	20	10	04	
	22	0	95	91	97	19	62	06	880	861	857	897	950	992	30	62	90	98	11	02	14	19	18	18	10	04	
	27	0	1107	95	97	10	50	994	880	860	860	900	956	995	32	63	90	1100	08	02	11	18	16	18	10	04	
	32	0	11	95	1102	1090	40	973	878	850	866	903	959	995	32	69	90	04	04	06	11	18	16	15	10	02	
	37	0	10	1100	1097	87	23	970	872	845	871	909	961	997	36	73	90	07	02	07	13	18	20	15	10	03	
	42	0	1092	1099	90	87	18	940	878	825	875	910	969	1000	38	79	90	10	00	07	15	19	20	15	07	03	
	47	0	92	97	99	80	11	938	879	825	875	918	970	02	41	81	91	16	1094	09	17	20	20	12	07	03	
	52	0	93	97	99	86	00	938	879	825	879	926	970	02	47	83	91	18	98	09	17	20	20	12	02	03	
	57	0																									
Faht...			85.2	85.3	85.3	85.2	85.1	85.0	85.3	85.6	85.8	86.0	86.3	86.5	86.6	86.7	86.8	86.8	86.5	86.6	86.7	86.8	86.8	86.7	86.7	86.7	
Attached Thermometer.....			85.2	85.3	85.3	85.2	85.1	85.0	85.3	85.6	85.8	86.0	86.3	86.5	86.6	86.7	86.8	86.8	86.5	86.6	86.7	86.8	86.8	86.7	86.7	86.7	
VERTICAL FORCE.	m.	s.	4828	4797	4796	4790	4756	4831	4920	5004	5040	4999	4970	4942	4952	4956	4941	4895	4895	4788	4825	4798	4801	4795	4754	4768	
	3	0	28	97	96	90	56	31	20	04	40	99	70	42	52	56	41	95	95	88	25	98	01	95	54	68	
	8	0	28	4810	96	90	56	31	41	04	40	99	70	42	52	56	41	95	95	88	25	98	01	95	54	68	
	13	0	4789	10	96	82	39	31	40	04	40	99	70	42	52	56	41	95	73	88	25	98	01	95	54	68	
	18	0	89	10	87	82	39	69	40	40	37	99	70	42	52	56	41	95	73	88	25	98	01	95	54	68	
	23	0	92	4785	87	82	39	69	62	40	37	70	70	42	52	56	41	95	73	88	25	98	01	95	54	68	
	28	0	92	85	87	33	39	90	85	40	20	70	70	42	52	56	41	95	47	88	25	98	01	95	54	68	
	33	0	92	85	97	33	59	90	85	40	20	70	70	42	52	56	41	95	47	88	25	98	01	95	54	68	
	38	0	92	85	97	33	59	90	85	40	20	70	70	42	52	56	41	95	47	88	25	98	01	95	54	68	
	43	0	92	4812	97	33	59	90	85	40	20	70	70	42	52	56	41	95	47	01	25	98	01	95	54	68	
	48	0	4828	12	4805	17	85	4914	85	40	20	70	70	42	52	56	41	95	09	01	25	98	01	95	54	68	
	53	0	03	07	4789	17	85	14	85	40	20	70	70	42	52	56	08	95	08	01	25	98	01	95	54	68	
	58	0	17	07	89	17	85	14	93	40	20	70	70	42	52	41	08	95	08	01	4796	98	01	95	54	68	

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 27TH MAY 1853, GOTTINGEN MEAN TIME.

Göttingen Mean Time.		FRIDAY, 27TH MAY 1853.														SATURDAY, 28TH MAY 1853.										
		p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0	0	1660	1660	1661	1670	1701	1703	1700	1682	1650	1632	1630	1644	1660	1658	1665	1669	1660	1659	1660	1659	1657	1664	1670	1670
	5	0	60	60	61	70	01	03	00	79	50	30	30	48	60	58	65	69	60	59	60	60	57	64	70	70
	10	0	60	60	60	71	02	03	1695	75	50	30	30	50	60	59	66	69	59	59	60	61	57	65	71	70
	15	0	61	61	60	74	05	03	94	73	50	28	30	50	60	60	66	68	59	59	60	61	57	64	71	70
	20	0	62	60	62	75	08	03	94	70	49	26	30	50	60	60	66	67	59	59	60	61	57	63	72	70
	25	0	60	60	63	79	09	03	91	69	43	22	30	55	60	61	67	67	59	59	61	61	57	62	72	70
	30	0	59	60	64	83	05	03	90	64	40	20	30	60	60	62	67	67	59	59	62	61	58	62	72	70
	35	0	59	60	66	86	04	03	90	62	40	20	30	60	60	62	68	65	59	60	62	61	60	64	71	70
	40	0	58	60	67	89	03	01	89	60	40	20	30	60	60	62	68	64	59	60	61	60	60	65	71	70
45	0	59	61	68	91	02	00	86	60	38	22	33	60	59	62	68	62	59	60	60	60	61	67	71	70	
50	0	59	61	69	91	02	00	82	58	36	25	39	60	59	63	68	61	59	60	58	60	62	69	70	70	
55	0	59	61	70	91	03	00	81	52	34	28	42	60	59	63	68	60	59	59	57	59	63	69	70	70	
HORIZONTAL FORCE.	m.	s.	1298	1297	1300	1307	1285	1260	1210	1180	1170	1238	1330	1400	1430	1428	1418	1392	1395	1406	1391	1404	1414	1428	1422	1428
	2	0	98	97	00	07	80	41	00	83	80	40	38	03	33	26	18	92	95	07	91	06	13	25	22	29
	7	0	92	97	1299	02	77	39	1196	82	80	44	45	08	38	26	15	90	97	07	91	08	13	23	24	29
	12	0	90	99	99	02	77	37	94	80	85	48	50	10	40	25	13	90	97	07	91	08	13	23	25	28
	17	0	95	99	95	02	79	30	90	72	89	52	43	16	40	22	10	88	97	1398	90	08	13	22	27	28
	22	0	1300	99	1304	1299	78	30	83	61	90	58	40	20	40	20	08	85	97	98	90	08	21	20	27	29
	27	0	02	1300	05	97	70	31	86	60	1200	65	40	28	40	19	05	84	97	98	91	08	25	20	27	30
	32	0	00	00	09	95	68	29	83	48	15	78	46	30	40	19	02	86	98	97	92	10	28	20	27	30
	37	0	00	00	09	95	55	20	76	40	22	80	55	30	40	19	00	87	98	97	92	11	30	20	27	30
	42	0	1298	02	10	92	47	15	74	40	28	80	70	30	39	17	1399	89	98	96	92	12	30	20	27	30
47	0	97	02	12	90	53	11	75	50	20	1308	78	30	37	17	99	90	98	92	93	14	29	21	28	30	
52	0	97	02	15	90	60	10	78	50	35	20	88	30	35	17	95	90	1401	90	96	16	28	22	28	30	
57	0	90.7	90.6	90.6	90.7	90.4	90.0	90.2	90.5	91.0	91.5	91.8	92.3	92.9	93.0	93.0	92.8	92.4	92.4	92.4	92.3	92.2	92.0	92.0	92.0	
Faht.....																										
Attached Thermometer.....																										
VERTICAL FORCE.	m.	s.	4743	4717	4714	4731	4712	4705	4727	4765	4857	4853	4812	4773	4762	4778	4757	4784	4760	4741	4728	4740	4722	4745	4745	4725
	3	0	43	17	14	31	12	05	27	65	57	53	12	73	62	78	57	84	60	41	28	40	22	45	45	25
	8	0	43	17	14	31	12	05	27	65	57	53	12	73	62	78	57	84	42	41	28	40	22	45	45	25
	13	0	62	32	14	10	24	05	27	72	58	53	35	60	62	78	57	84	16	41	28	40	22	45	45	25
	18	0	62	32	29	4696	24	05	27	72	42	53	35	60	62	78	57	84	48	41	28	40	22	45	45	25
	23	0	42	32	29	96	24	05	27	4805	42	53	35	40	62	78	40	84	48	41	28	40	22	45	45	25
	28	0	11	32	29	96	24	05	37	05	42	53	35	40	62	78	40	84	48	41	28	40	22	45	45	25
	33	0	11	39	11	81	24	4694	37	05	42	75	28	40	62	78	40	97	48	41	28	40	22	45	45	25
	38	0	11	39	11	81	06	94	37	45	42	75	28	35	62	78	40	97	48	41	28	40	22	45	45	25
	43	0	4690	39	11	81	04	94	37	45	60	75	47	35	62	78	60	97	42	41	28	40	45	45	45	25
48	0	90	39	19	72	04	94	62	46	60	75	30	35	62	78	60	97	42	41	28	40	45	45	45	25	
53	0	90	39	19	4709	04	94	62	48	60	45	30	35	62	78	60	97	42	41	28	40	45	45	45	25	
58	0	90.5	90.4	90.3	90.1	90.2	90.2	90.6	91.0	91.4	92.0	92.4	93.0	93.5	93.6	93.4	92.8	92.2	91.8	91.6	91.5	91.3	91.2	91.0	90.8	
Faht.....																										
Attached Thermometer....																										
INDUCTION INCLINO-METER.	m.	s.	1608	1																						

COMMENCING AT 10 P. M. OF 22ND JUNE 1853, GOTTINGEN MEAN TIME.

[illegible]

[illegible]

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 26TH AUGUST 1853, GOTTINGEN MEAN TIME.

Gottingen Mean Time.			FRIDAY, 26TH AUGUST 1853.														SATURDAY, 27TH AUGUST, 1853.									
			p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0	0	1700	1706	1710	1718	1738	1749	1740	1710	1684	1661	1664	1662	1665	1685	1700	1700	1695	1690	1691	1695	1695	1690	1692	1690
	5	0	02	07	11	18	39	50	38	10	82	61	64	62	66	88	00	00	95	90	91	95	94	90	92	90
	10	0	02	09	11	19	41	49	37	02	80	60	65	62	66	90	03	1698	94	90	91	95	94	90	92	90
	15	0	01	09	14	20	42	48	32	02	80	60	65	63	67	90	06	96	93	90	91	95	94	90	91	90
	20	0	00	10	14	22	42	48	31	1697	77	60	65	63	69	93	07	94	92	90	91	95	94	90	91	90
	25	0	00	10	15	24	45	48	30	98	75	60	65	63	70	96	07	94	92	90	91	95	93	92	91	90
	30	0	00	10	15	27	47	48	30	95	72	60	64	63	70	1700	09	92	92	91	91	95	93	92	91	90
	35	0	01	10	15	28	48	44	22	90	70	60	64	64	73	00	06	90	91	91	92	95	93	92	91	90
	40	0	02	10	15	30	48	44	20	90	66	60	63	64	76	00	04	90	90	91	92	95	93	92	91	90
	45	0	02	10	14	31	48	43	20	87	63	61	63	65	80	00	02	90	89	91	94	95	92	92	90	90
50	0	02	10	12	35	50	43	20	84	62	62	62	65	80	00	02	93	89	91	94	95	91	92	90	90	
55	0	04	10	12	38	51	41	12	84	61	62	62	65	82	00	00	94	89	91	94	95	91	92	90	90	
HORIZONTAL FORCE.	m.	s.	1070	1106	1112	1086	1092	1070	1029	990	997	1030	1047	1081	1145	1205	1197	1160	1190	1167	1184	1208	1186	1160	1160	1158
	2	0	76	10	15	88	1102	70	39	990	1002	30	47	85	49	05	96	60	90	67	84	06	84	60	60	58
	7	0	76	15	15	82	05	60	39	989	08	30	55	87	53	08	95	60	85	67	84	04	80	60	62	57
	12	0	76	15	11	77	06	89	39	989	17	30	60	90	69	10	92	62	80	66	84	04	79	60	62	55
	17	0	77	17	10	81	00	89	38	990	26	32	67	95	70	07	90	62	72	66	84	04	79	62	62	55
	22	0	79	22	10	80	00	69	26	995	23	32	69	1104	70	08	90	65	70	66	84	03	70	63	63	55
	27	0	79	20	1090	80	1092	68	27	990	22	38	70	10	72	08	86	65	67	69	90	03	63	64	64	54
	32	0	81	17	80	81	89	58	08	990	24	41	70	11	78	04	83	65	63	69	97	03	60	62	63	54
	37	0	82	20	77	82	89	58	02	992	27	44	70	10	85	03	78	65	60	69	1205	03	54	61	64	54
	42	0	82	20	81	90	89	57	02	989	31	45	72	19	90	00	72	69	43	69	06	00	53	60	62	52
	47	0	82	20	83	87	78	57	02	990	30	48	75	24	94	00	70	75	60	72	06	1192	55	60	62	52
52	0	89	14	83	90	79	38	998	992	29	49	80	30	97	00	65	86	69	78	08	88	58	60	60	52	
57	0	Faht...																								
Attached Thermometer...			86.8	86.9	86.9	86.7	86.5	86.3	86.8	86.9	87.0	87.4	87.9	88.2	88.7	88.6	88.5	88.0	88.0	88.2	88.2	88.2	88.2	88.0	88.0	88.0
VERTICAL FORCE.	m.	s.	4611	4602	4554	4540	4588	4686	4794	4862	4966	4718	4700	4639	4677	4676	4621	4635	4695	4641	4632	4632	4582	4599	4599	4600
	3	0	11	4593	54	40	88	86	94	62	4823	18	00	39	77	76	21	35	95	41	32	32	82	99	99	00
	8	0	11	93	54	40	88	92	94	60	4680	18	00	39	77	76	21	35	95	41	32	32	82	99	99	00
	13	0	11	93	47	49	88	4706	94	60	40	27	4671	39	77	76	28	50	95	41	32	32	82	99	4600	00
	18	0	42	75	47	49	4607	08	4808	60	00	27	71	39	77	50	28	50	95	41	32	32	82	99	00	00
	23	0	42	75	47	49	07	61	08	60	26	27	71	39	77	50	28	50	92	41	32	32	82	99	00	00
	28	0	42	79	47	35	30	65	08	60	53	40	71	39	77	50	28	50	90	41	32	32	82	99	00	00
	33	0	42	79	30	20	30	60	12	60	80	40	71	39	77	35	00	50	72	46	32	33	82	99	00	00
	38	0	49	79	30	20	30	60	45	60	4707	40	71	39	77	35	00	50	69	46	32	32	82	99	00	00
	43	0	49	62	30	20	30	66	50	45	35	40	71	39	77	35	74	50	27	46	32	32	82	99	00	00
	48	0	49	62	43	20	69	66	50	20	35	40	71	39	77	35	74	75	27	40	32	32	88	99	00	00
53	0	49	62	43	70	69	85	57	08	35	40	71	39	77	35	74	75	27	40	32	32	88	99	00	00	
58	0	Faht...																								
Attached Thermometer...			86.5	86.5	86.5	86.3	86.2	86.6	87.2	87.2	87.4	88.0	88.6	88.8	89.1	89.0	88.5	88.0	88.0	88.0	87.9	87.9	87.8	87.8	87.6	87.5
INDUCTION INCLINO-METER.	m.	s.	1770	1773	1772	1780	1803	1811	1807	1782	1759	1745	1747	1749	1753	1770	1778	1772	1770	1768	1767	1770	1771	1768	1770	1768
	0	20	70	73	72	80	04																			

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 19TH OCTOBER 1853, GOTTINGEN MEAN TIME.

Gottingen Mean Time.			WEDNESDAY, 19TH OCTOBER, 1853.														THURSDAY, 20TH OCTOBER, 1853.									
			p.m.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
		0	1678	1676	1679	1678	1681	1692	1698	1700	1686	1675	1679	1673	1680	1681	1677	1673	1671	1674	1676	1676	1677	1680	1680	1679
		5	78	78	79	79	81	93	98	00	84	76	79	74	80	81	77	72	71	74	76	76	77	80	80	79
		10	79	78	78	79	81	93	99	1698	82	78	78	75	80	80	77	72	72	74	76	76	77	80	80	78
		15	79	79	78	79	81	98	99	98	80	78	78	75	80	79	77	71	72	74	76	76	77	80	80	79
		20	77	79	80	78	82	97	1700	93	78	78	78	75	80	79	76	70	72	74	76	76	77	80	80	80
		25	77	77	80	79	83	98	00	93	76	77	77	75	80	78	75	70	72	74	76	76	77	80	80	80
		30	75	76	80	79	87	99	00	92	77	79	77	76	81	77	74	70	72	74	76	77	78	80	80	80
		35	75	76	78	80	88	99	00	91	76	80	77	77	81	77	74	70	72	74	76	77	78	80	80	80
		40	74	78	78	80	88	98	00	90	75	79	76	78	82	77	74	70	72	74	76	77	78	80	80	80
		45	72	79	79	81	89	96	00	89	75	79	77	78	82	77	74	70	73	74	76	77	78	80	80	80
		50	73	80	78	80	89	96	00	88	73	79	77	79	82	77	74	70	73	76	76	77	78	80	80	80
		55	73	80	78	80	91	96	00	88	73	79	74	80	82	77	74	70	73	76	76	77	80	80	80	80
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	1010	1007	1025	1025	1009	961	880	832	857	844	863	901	940	975	988	1000	1032	1064	1084	1069	1048	1038	1042	1040
		2	10	07	25	25	07	952	880	831	856	847	863	907	944	977	990	02	34	65	85	69	48	38	42	40
		7	10	09	20	25	07	952	880	840	858	850	863	909	947	978	992	05	40	65	85	68	48	40	43	40
		12	05	11	20	20	998	940	872	850	860	849	863	910	950	978	995	08	42	65	85	66	48	40	43	40
		17	07	13	20	20	995	930	869	850	856	849	868	914	952	980	999	10	49	66	85	65	48	38	43	42
		22	11	15	20	21	992	924	862	860	854	848	870	919	955	980	999	12	49	68	85	65	48	42	43	42
		27	05	15	21	20	989	913	863	860	852	852	875	922	958	982	999	13	49	70	86	60	48	46	40	42
		32	05	12	22	20	982	905	860	850	850	859	879	927	959	982	998	15	52	71	86	55	44	46	40	44
		37	02	16	22	21	980	900	852	851	850	862	884	929	962	985	998	19	56	72	83	50	44	43	40	44
		42	00	20	25	20	972	895	850	852	850	863	888	930	967	985	999	21	59	74	80	50	40	43	40	40
		47	00	24	25	17	972	890	838	852	846	860	892	935	970	985	999	26	61	76	77	49	40	42	40	40
		52	02	25	27	14	970	886	837	854	844	861	898	939	972	985	1000	29	62	80	74	48	38	42	40	40
		Faht...		85.3	85.3	85.5	85.5	85.1	85.0	85.1	85.2	85.5	85.8	85.8	86.0	86.0	86.0	86.0	85.8	86.1	86.3	86.3	86.3	86.2	86.1	86.0	86.0
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	4489	4475	4525	4476	4481	4522	4587	4654	4659	4684	4719	4752	4746	4652	4600	4559	4543	4545	4555	4529	4527	4489	4513	4500
		3	89	75	25	76	81	22	87	54	59	84	19	52	46	52	00	59	43	45	55	29	27	89	13	00
		8	89	75	25	76	81	23	88	57	59	84	19	52	46	52	00	59	43	45	55	29	27	89	13	00
		13	72	82	01	4509	89	37	88	57	59	84	19	52	46	52	00	59	43	45	55	29	27	89	13	00
		18	72	82	01	09	4501	58	4613	69	59	84	43	52	25	52	00	59	43	45	55	29	27	89	13	00
		23	72	95	01	4485	01	55	13	69	59	84	43	52	25	52	00	59	43	45	55	29	27	89	13	26
		28	81	95	4492	85	49	55	14	68	59	4724	43	52	25	22	74	59	43	45	55	24	27	89	13	26
		33	81	95	92	85	49	55	32	68	78	24	43	52	25	22	74	43	43	45	55	24	27	89	13	26
		38	81	95	92	85	49	70	32	68	78	24	60	52	01	22	74	43	43	45	55	24	27	89	13	26
		43	99	4510	84	4551	50	70	38	68	78	24	60	52	01	22	74	43	43	45	55	24	00	89	13	26
		48	99	10	84	51	50	77	43	68	78	24	60	46	01	22	74	43	43	45	55	24	00	89	13	26
		53	99	10	84	4482	50	77	43	68	78	24	60	46	01	22	74	43	43	45	55	24	00	89	13	26
		Faht...		85.0	85.0	85.0	84.9	84.8	85.3	85.5	85.7	86.1	86.5	86.6	86.7	87.0	86.8	86.5	86.1	85.8	85.7	85.6	85.5	85.4	85.5	85.5	85.3
METEOROLOGICAL OBSERVATIONS.	INDUCTION INCLINO-METER.	m. s.	1770	1773	1771	1771	1773	1783	1788	1792	1777	1770	1770	1769	1773	1772	1770	1769	1770	1773	1775	1775	1775	1678	1780	1780
		0	70	73	71	71	73	83	89	92	73	71	70	69	74	72	70	69	70	73	75	75	75	78	80	80
		5	70	73	71	71	73	83	89	88	71	72	69	69	74	72	70	69	70	73	75	75				

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 21ST DECEMBER 1853, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. OF 21st DECEMBER 1853, GOTTINGEN MEAN TIME.																									
		WEDNESDAY, 21ST DECEMBER, 1853.															THURSDAY, 22ND DECEMBER, 1853.										
Gottingen Mean Time.		p.m.															Noon										
		10	11	12	13	14	15	16	17	18	19	20	21	22	23	1	2	3	4	5	6	7	8	9			
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	sed. 1660	sed. 1660	sed. 1663	sed. 1658	sed. 1650	sed. 1648	sed. 1646	sed. 1634	sed. 1638	sed. 1640	sed. 1647	sed. 1640	sed. 1649	sed. 1660	sed. 1660	sed. 1650	sed. 1652	sed. 1653	sed. 1654	sed. 1654	sed. 1652	sed. 1650	sed. 1650	sed. 1654	
	0	0	60	58	62	58	50	48	45	32	36	41	47	40	49	60	60	50	52	53	54	54	52	50	50	55	
	5	0	60	58	62	59	49	48	42	33	39	42	45	40	50	60	60	50	52	53	54	54	52	50	49	55	
	10	0	62	58	60	60	47	43	40	33	35	42	44	40	50	60	60	50	52	53	54	54	52	50	49	55	
	15	0	62	60	60	60	47	47	40	34	34	40	43	40	51	60	60	50	52	53	53	54	52	50	49	56	
	20	0	62	60	60	60	45	48	40	34	32	41	42	42	52	60	60	50	53	53	53	54	52	50	49	56	
	25	0	62	60	60	60	45	48	40	34	32	41	42	42	52	60	60	50	53	53	53	54	52	50	49	56	
	30	0	60	60	60	62	39	43	40	38	33	42	42	45	52	60	60	50	53	53	53	54	52	50	49	57	
	35	0	60	61	60	58	40	43	40	38	33	42	42	45	52	60	58	50	53	53	53	54	51	50	49	57	
	40	0	60	63	59	56	41	42	40	39	34	42	42	45	55	60	58	50	53	53	53	54	51	50	50	56	
	45	0	60	63	59	53	42	43	39	40	34	44	42	47	57	60	56	50	53	53	53	54	51	50	50	56	
	50	0	60	61	59	53	42	48	36	40	36	46	42	48	59	60	53	50	53	53	53	54	50	50	51	55	
	55	0	60	61	57	51	43	48	33	40	38	47	41	49	59	60	50	50	53	53	53	53	50	50	53	55	
	MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	810	792	812	797	761	731	688	678	670	680	700	723	742	780	830	803	800	818	810	826	807	823	813	810
2		0	810	792	810	795	757	731	690	671	660	680	705	724	748	783	830	807	800	818	810	824	811	821	813	810	
7		0	810	790	810	790	756	718	685	670	664	682	709	726	753	788	830	810	797	818	810	821	818	820	813	810	
12		0	814	790	810	794	752	718	681	667	665	682	711	729	759	794	826	810	796	815	810	819	820	820	812	811	
17		0	814	790	810	790	750	712	681	664	664	683	715	732	756	792	820	803	796	810	810	812	820	817	812	811	
22		0	817	800	814	790	752	703	680	662	664	665	718	731	753	790	815	798	799	813	810	809	820	817	811	812	
27		0	814	805	817	795	752	692	680	660	666	668	719	730	757	807	815	795	800	814	810	796	821	815	811	812	
32		0	810	810	810	790	750	688	687	662	666	674	720	731	760	810	810	795	807	816	814	794	821	815	811	812	
37		0	810	812	807	788	751	689	680	667	667	682	720	732	775	815	806	795	809	814	817	793	823	815	810	808	
42		0	812	812	802	780	749	690	678	675	669	688	720	736	787	820	800	797	811	810	821	792	825	815	810	805	
47		0	810	815	800	780	743	699	675	677	667	692	720	737	782	828	800	798	814	810	828	792	825	813	810	805	
52		0	807	815	799	776	743	692	670	674	676	696	721	740	782	830	800	798	818	810	829	801	825	813	810	805	
57		0	807	815	799	776	743	692	670	674	676	696	721	740	782	830	800	798	818	810	829	801	825	813	810	805	
Attached Thermometer.....		Faht...	77.7	77.7	77.6	77.3	76.9	76.8	76.8	77.1	77.3	77.6	77.8	78.0	78.0	78.4	78.4	78.2	78.3	78.4	78.4	78.5	78.5	78.5	78.4	78.3	
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	sed. 4690	sed. 4659	sed. 4634	sed. 4627	sed. 4636	sed. 4644	sed. 4685	sed. 4690	sed. 4691	sed. 4642	sed. 4652	sed. 4723	sed. 4748	sed. 4687	sed. 4723	sed. 4664	sed. 4662	sed. 4657	sed. 4643	sed. 4645	sed. 4632	sed. 4617	sed. 4665	sed. 4665	
	3	0	90	59	34	27	36	46	85	90	91	42	52	23	48	87	23	64	62	57	43	45	32	17	65	65	
	8	0	90	59	34	27	36	46	85	90	91	42	52	23	48	87	23	64	62	57	43	45	32	17	65	65	
	13	0	72	59	15	71	59	63	85	91	31	42	52	23	48	87	23	64	62	57	43	45	32	17	65	65	
	18	0	72	40	15	71	59	64	85	91	31	07	52	23	20	87	23	64	62	57	43	45	32	17	65	65	
	23	0	72	40	25	71	59	64	85	91	31	07	52	23	20	87	4690	50	62	57	43	45	30	47	65	65	
	28	0	84	40	25	89	55	65	85	91	31	96	4710	23	20	87	90	50	62	57	43	45	30	47	65	65	
	33	0	84	40	25	89	55	65	85	91	31	96	4710	23	20	87	90	50	62	57	43	45	30	47	65	65	
	38	0	84	40	25	89	55	65	85	91	31	96	4710	23	20	87	90	50	62	57	43	45	30	47	65	65	
	43	0	84	32	59	89	55	4705	95	85	21	96	10	23	00	00	78	50	62	57	43	45	17	47	65	65	
	48	0	84	32	59	24	56	05	95	85	21	96	10	43	00	00	78	50	62	57	43	45	17	47	65	65	
	53	0	84	32	90	24	56	4689	95	4655	23	96	10														

$$a \left(1 + \frac{H}{F} \right) = 4.03 \times 1.000598 = 4.03241$$

$$\alpha + 7' 6'' = \rho = 0^\circ 41' 8.2'' + 7' 6'' = 0^\circ 48' 14.2'' \text{ East of North.}$$

Zero 1497.

DECLINATION MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Daily & Monthly Means.	Absolute Declination to the East of North.	
Madras Mean Time.	P.M. 4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41			
JANUARY 1854. Declination Magnetometer.	December 31	1660	1660	1662	1662	1659	1660	1662	1661	1660	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1651	0 58 35
	1	—	—	—	—	—	—	—	—	—	1655	1650	1643	1635	1622	1630	1618	1645	1645	1635	1638	1652	1662	1669	1670	1651	0 58 35
	2	664	666	669	666	660	665	670	675	680	675	670	664	657	640	639	624	634	637	630	629	672	690	690	686	661	59 16
	3	670	652	660	661	658	656	654	657	660	661	662	660	656	650	640	640	654	652	632	630	642	660	662	663	654	58 47
	4	650	640	650	654	655	652	650	650	650	649	648	650	650	642	640	640	650	644	617	628	629	638	657	665	646	58 15
	8	650	640	646	648	646	643	640	646	651	649	647	645	642	638	638	652	677	670	660	634	632	660	660	662	649	58 27
	6	654	648	650	652	650	649	648	648	647	646	645	644	642	638	642	650	650	622	612	604	610	630	640	648	640	57 51
	7	654	650	654	655	653	655	657	654	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	8	—	—	—	—	—	—	—	—	—	650	650	651	650	651	648	666	688	678	654	640	652	632	648	665	654	58 47
	9	675	680	680	681	679	675	672	671	670	669	668	667	664	669	670	697	715	706	686	670	669	670	675	675	677	1 0 20
	10	678	670	670	673	672	671	670	668	666	664	662	659	655	653	654	659	683	687	644	615	627	646	650	659	661	0 59 16
	11	670	680	680	679	674	672	671	668	665	664	662	658	652	650	648	668	692	701	686	674	660	659	659	673	669	59 48
	12	678	670	678	681	680	676	673	673	673	668	662	657	651	645	642	647	657	660	652	641	647	660	665	670	663	59 24
	13	672	672	678	677	672	671	670	665	660	660	660	661	660	655	655	656	666	677	672	655	643	660	668	666	665	59 32
	14	662	670	673	674	671	673	675	673	670	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	15	—	—	—	—	—	—	—	—	—	665	659	657	653	650	645	646	658	670	676	658	658	670	680	680	665	59 32
	16	670	660	669	673	673	675	677	673	668	665	662	660	657	660	657	635	657	661	645	637	638	652	660	680	661	59 16
	17	680	680	671	674	673	671	670	671	672	670	667	669	669	660	663	654	660	670	660	670	670	678	687	688	671	59 56
	18	687	679	679	678	674	672	670	670	670	671	672	672	670	668	664	658	663	664	658	640	648	665	667	673	668	59 44
	19	686	680	672	673	670	672	675	674	672	671	670	669	666	660	660	653	660	657	646	650	650	672	691	690	668	59 44
	20	675	668	670	677	680	675	670	667	664	662	660	661	660	655	647	653	656	662	670	634	629	652	664	670	662	59 20
	21	672	660	661	667	670	665	660	656	652	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	22	—	—	—	—	—	—	—	—	—	650	648	647	644	642	640	638	649	654	638	636	644	643	640	644	651	58 35
	23	658	652	652	653	650	650	650	653	655	658	660	659	657	652	643	641	649	661	650	638	642	642	632	632	650	58 31
	24	638	644	650	653	652	651	650	650	650	650	650	655	658	660	640	643	650	660	670	670	662	660	648	644	652	58 39
	25	648	642	641	643	642	642	643	644	645	645	644	643	641	634	630	630	640	660	660	636	630	637	643	644	642	57 59
	26	645	649	650	652	650	647	645	650	655	648	640	640	638	630	632	638	643	654	660	645	640	640	638	643	645	58 11
	27	652	650	648	650	648	645	642	641	640	640	640	640	638	637	630	634	648	657	650	635	635	640	638	635	642	57 59
	28	640	640	645	646	643	641	640	635	630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	29	—	—	—	—	—	—	—	—	—	644	658	655	651	650	635	631	625	637	641	640	643	662	670	662	644	58 7
	30	665	648	652	654	653	654	655	663	670	664	658	657	654	650	638	624	616	620	622	610	620	642	652	662	646	58 15
	31	660	650	659	657	652	652	653	652	650	653	656	654	650	643	650	650	660	672	660	647	637	640	653	657	653	0 58 49
Means.....	1663	1659	1662	1663	1661	1660	1660	1660	1659	1658	1657	1655	1653	1648	1645	1646	1657	1661	1651	1641	1644	1654	1659	1663	1656	—	—
Declination.....	59 24	59 7	59 20	59 24	59 16	59 12	59 12	59 12	59 7	59 3	58 59	58 51	58 43	58 23	58 11	58 15	58 59	59 16	58 35	57 55	58 7	58 47	59 7	59 24	.....	0 58 55	
Mean Hourly Variations from Monthly Mean.	29	12	25	29	21	17	17	17	12	8	4	-4	-12	-32	-44	-40	4	21	-20	-60	-48	-8	12	29	—	—	
FEBRUARY 1854. Declination Magnetometer.	1	1655	1650	1653	1656	1660	1658	1658	1658	1657	1658	1660	1656	1652	1650	1643	1643	1650	1664	1662	1645	1644	1662	1658	1650	1654	0 58 47
	2	650	658	665	667	669	666	665	666	666	665	665	662	660	660	658	658	669	685	688	674	668	660	666	673	666	59 36
	3	671	670	672	671	670	669	670	671	670	670	670	668	667	660	658	652	660	670	680	671	671					

Zero 1497.

DECLINATION MAGNETOMETER.

The numbers in these Columns are not observed but interpolated, for the sake of obtaining the daily Means. The small figures heading them are the corrections of interpolations.

$$\alpha \left(1 + \frac{H}{F}\right) = 4.03 \times 1.000598 = 4.03241$$

$$\alpha + \delta = \rho = 0^\circ 41' 8.2'' + \delta = 0^\circ 48' 14.2'' \text{ East of North.}$$

Zero 1497.

DECLINATION MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Daily & Monthly Means.	Absolute Declination to the East of North.	
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.		
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41			
MAY 1854. Declination Magnetometer.				-1.6		0.6		-0.4		0.4		-0.4															
	1	1696	1709	1740	1736	1736	1742	1747	1742	1738	1739	1740	1740	1740	1755	1745	1750	1745	1722	1690	1668	1662	1666	1672	1701	1722	1 3 22
	2	716	724	722	724	730	731	730	730	731	736	740	740	740	744	762	760	740	710	694	687	659	690	689	700	722	3 22
	3	720	717	696	697	702	706	709	709	710	713	715	714	713	708	720	718	710	696	680	671	657	662	691	690	701	1 57
	4	691	689	691	689	691	694	695	701	708	709	710	711	712	730	736	740	730	700	680	678	674	687	693	709	702	2 1
	5	713	722	733	729	728	726	722	722	722	721	720	719	718	735	758	760	748	720	690	683	684	700	716	722	721	3 18
	6	733	729	726	721	720	726	730	730	730	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	7	—	—	—	—	—	—	—	—	—	739	748	750	752	757	760	762	750	730	700	680	686	695	717	737	730	3 54
	8	739	736	732	728	728	735	740	745	750	755	760	761	762	760	772	768	750	728	699	690	680	705	700	718	735	4 14
	9	730	733	732	730	732	732	730	748	767	767	766	760	755	770	787	779	753	720	712	700	702	716	727	732	741	4 38
	10	740	742	742	735	732	742	750	751	752	755	758	754	750	762	770	758	730	710	690	675	684	700	717	731	735	4 14
	11	733	730	727	721	719	721	722	726	730	734	738	744	750	760	768	770	752	720	700	688	680	692	724	725	728	3 46
	12	730	730	722	719	719	725	730	735	740	736	732	736	740	752	760	753	740	712	690	675	678	683	702	717	723	3 26
	13	727	728	728	724	724	725	725	722	720	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	14	—	—	—	—	—	—	—	—	—	723	725	736	748	740	745	743	728	702	680	668	675	687	702	710	718	3 5
	15	713	705	715	717	722	728	732	734	737	740	742	750	758	767	770	760	742	710	683	674	683	685	690	695	723	3 26
	16	710	723	709	713	720	726	730	737	744	746	748	742	737	746	772	770	738	718	705	680	685	688	697	705	725	3 34
	17	713	717	710	709	712	715	717	723	730	730	730	728	727	742	755	756	738	710	708	702	697	700	710	713	721	3 18
	18	722	720	717	716	719	722	723	726	730	729	728	729	730	740	740	738	730	711	690	694	675	688	686	692	716	2 57
	19	700	708	709	707	709	716	721	724	728	729	730	731	733	735	748	760	745	710	692	671	668	660	675	687	712	2 41
	20	698	710	709	712	719	720	720	721	722	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	21	—	—	—	—	—	—	—	—	—	719	715	713	712	730	733	735	728	703	680	675	670	680	682	687	708	2 25
	22	690	698	697	695	697	701	703	705	708	709	710	710	710	714	723	725	718	702	688	653	665	680	676	682	698	1 45
	23	691	700	700	696	695	694	692	697	702	706	710	711	712	720	730	740	728	700	680	658	647	658	678	690	697	1 41
	24	689	695	692	692	695	696	696	698	700	701	702	701	700	705	720	725	720	710	683	670	663	669	654	652	693	1 25
	25	678	690	687	680	677	684	690	695	700	699	698	700	702	722	731	726	718	692	682	675	657	645	663	677	690	1 13
	26	692	704	700	698	700	699	697	698	699	700	701	702	710	721	720	710	698	670	650	640	643	654	666	—	691	1 17
	27	670	678	685	674	667	671	673	680	688	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	28	—	—	—	—	—	—	—	—	—	685	682	681	680	679	686	692	690	680	660	652	645	649	651	650	673	0 4
	29	666	672	676	676	680	689	697	688	680	680	680	680	680	682	698	700	684	665	645	632	625	630	640	643	670	0 59 52
	30	663	670	670	669	672	677	681	680	680	680	681	682	685	700	708	699	690	660	649	638	648	670	678	—	675	1 0 12
	31	680	685	679	675	674	680	685	683	681	682	683	684	685	682	694	695	681	668	652	640	630	632	641	666	672	1 0 0
Means.....		1705	1710	1709	1707	1708	1712	1714	1717	1720	1721	1722	1722	1723	1731	1741	1741	1728	1705	1685	1672	1667	1675	1686	1695	1709	
Declination.....		62 13	62 33	62 29	62 21	62 25	62 41	62 49	63 1	63 13	63 18	63 22	63 22	63 26	63 68	64 38	64 38	63 46	62 13	60 52	60 0	59 40	60 12	60 56	61 33	.....	1 2 29
Mean Hourly Variations from Monthly Mean.		-16	4	0	-8	-4	12	20	32	44	49	53	53	57	89	129	129	77	-16	-97	-149	-169	-137	-93	-56		
JUNE 1854. Declination Magnetometer.				-2.4		0.1		0.2		0.4		-0.99															
	1	1675	1677	1672	1670	1672	1675	1678	1678	1678	1678	1680	1690	1700	1715	1708	1690	1663	1651	1646	1643	1643	1650	1675	1 0 12		
	2	663	674	680	675	674	677	679	680	680	679	678															

Zero 1497.

DECLINATION MAGNETOMETER.

* The numbers in these Columns are not observed but interpolated, for the sake of obtaining the daily Means. The small figures heading them are the Corrections of interpolations.

$$a \left(1 + \frac{H}{F} \right) = 4.03 \times 1.000598 = 4.03241$$

$$a + 7' 6.0'' = \rho = 0^\circ 41' 8.2'' + 7' 6.0'' = 0^\circ 48' 14.2'' \text{ East of North.}$$

Zero 1497.

DECLINATION MAGNETOMETER.

Göttingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Daily & Monthly Means.	Absolute Declination to the East of North.
Madras Mean Time.		P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.		
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41		
SEPTEMBER 1854. Declination Magnetometer.				0.1		-0.7		-0.2		0.4		0.0															
	1	1690	1685	1681	1684	1686	1686	1688	1688	1688	1688	1687	1687	1687	1695	1710	1709	1697	1679	1665	1655	1650	1658	1657	1663	1682	1 0 40
	2	679	686	683	682	681	684	688	689	690																	
	3										690	690	689	689	692	707	704	682	667	658	650	650	654	666	680	680	0 32
	4	692	688	680	680	680	683	688	689	690	689	688	689	690	700	718	717	695	674	660	650	652	666	680	690	685	0 52
	5	691	686	686	684	682	681	682	685	689	690	690	690	690	698	711	710	699	670	640	630	632	648	670	690	680	0 32
	6	698	692	684	683	682	680	680	682	685	687	689	693	698	708	725	720	699	670	646	635	638	650	670	690	683	0 44
	7	698	690	685	683	680	681	683	685	688	689	690	691	692	700	720	726	708	682	660	640	639	645	660	688	683	0 44
	8	693	683	683	682	680	679	680	683	687	691	695	695	695	710	722	738	710	681	658	640	638	660	673	690	685	0 52
	9	698	690	681	681	680	680	681	682	684																	
	10										687	690	694	698	702	708	710	695	682	658	637	640	659	670	688	682	0 40
	11	694	688	704	702	700	704	710	707	704	702	700	700	700	704	720	715	695	685	672	654	650	660	680	692	693	1 25
	12	692	689	690	686	681	682	685	687	690	695	700	700	700	702	730	740	722	702	675	660	660	665	685	692	692	1 21
	13	700	696	688	686	683	685	688	689	690	691	692	692	692	698	712	706	704	680	665	646	645	650	670	685	685	0 52
	14	688	689	685	686	686	685	685	687	690	689	688	685	682	689	702	715	717	710	692	664	661	670	680	708	689	1 8
	15	710	692	688	684	680	681	683	685	687	688	688	687	686	690	710	720	695	680	662	643	658	670	680	685	685	0 52
	16	690	682	688	688	688	687	687	688	690																	
	17										689	688	689	690	697	710	712	700	673	672	670	669	670	685	698	688	1 4
	18	700	694	688	688	687	687	689	690	692	694	695	691	688	692	712	722	702	684	672	664	655	670	688	688	689	1 8
	19	686	680	680	680	680	681	683	685	687	688	688	686	685	690	710	707	690	674	665	654	660	670	690	705	684	0 48
	20	700	690	686	685	684	682	682	685	688	687	685	682	680	681	703	702	692	676	652	641	640	650	676	678	679	0 28
	21	680	674	670	675	679	681	685	687	690	690	690	690	690	694	720	722	702	680	660	640	641	650	661	677	680	0 32
	22	682	680	679	680	680	682	685	687	690	690	690	688	687	690	710	709	690	680	672	658	650	649	668	680	682	0 40
	23	688	680	673	673	672	674	678	678	679																	
	24										677	675	675	675	680	700	695	673	658	635	624	626	639	662	678	669	0 59 48
	25	680	672	675	673	670	671	673	675	678	674	670	672	675	683	700	695	682	668	658	638	629	638	660	676	670	59 52
	26	680	670	667	667	666	667	670	671	672	671	670	671	672	682	698	705	697	672	645	620	620	635	663	680	668	59 44
	27	688	680	675	676	677	676	677	677	678	679	680	685	690	690	707	710	700	682	660	640	622	645	668	684	677	1 0 20
	28	693	688	685	683	680	679	680	681	682	686	690	691	692	695	710	708	695	675	650	640	632	650	675	690	680	0 32
29	690	680	679	680	680	679	679	683	688	689	690	689	688	695	722	713	697	672	659	643	642	657	675	690	682	1 0 40	
Means.....		1691	1685	1683	1682	1681	1681	1684	1685	1687	1688	1688	1688	1688	1694	1712	1713	1698	1678	1660	1645	1644	1655	1672	1687	1682	.....
Declination.....		61 17	60 52	60 44	60 40	60 36	60 36	60 48	60 52	61 0	61 4	61 4	61 4	61 4	61 29	62 41	62 45	61 45	60 24	59 12	58 11	58 7	58 51	60 0	61 0	.....	
Mean Hourly Variations from Monthly Mean.		37	12	4	0	-4	-4	8	12	20	24	24	24	24	49	121	125	65	-16	-88	-149	-153	-109	-40	20	.....	
OCTOBER 1854. Declination Magnetometer.				1.3		-0.4		1.0		0.1		-0.2															
	September 30	1692	1682	1683	1683	1681	1684	1688	1690	1690																	
	1										1688	1685	1686	1688	1690	1710	1708	1698	1682	1670	1669	1659	1670	1687	1693	1686	1 0 56
	2	694	685	687	689	688	689	690	691	690	689	688	689	690	690	707	711	711	690	662	631	630	650	679	690	684	0 48
	3	690	686	690	691	689	688	688	690	690	690	689	688	687	682	709	710	700	685	663	659	663	678	697	703	688	1 4
	4	698	690	691	691	689	689	689	690	690	689	687	683	680	685	689	694	690	671	652	640	632	643	660	673	679	0 28
	5	675	669	670	672	672	672	672	674	675	675	675	672	670	670	688	690	690	689	683	670	660	668	683	687	676	0 16
	6	680	668	669	672	672	672	672	677	680	679	677	676	675	672	684	683	678	664	658	642	650					

$$a \left(1 + \frac{H}{F}\right) = 4.03 \times 1.000598 = 4.03241$$

$$a + 7' 6'' = \rho = 0^\circ 41' 8.2'' + 7' 6'' = 0^\circ 48' 14.2'' \text{ East of North.}$$

Zero 1497.

DECLINATION MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Daily & Monthly Means.	Absolute Declination to the East of North.
Madras Mean Time.		P.M. h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41		
NOVEMBER 1854. Declination Magnetometer.																											
	1	1692	1690	1688	1689	1693	1691	1692	1692	1700	1695	1690	1688	1686	1683	1679	1680	1685	1682	1678	1677	1688	1692	1702	1700	1689	1 1 8
	2	700	695	691	697	690	690	693	692	690	691	692	686	680	679	673	681	680	688	682	678	688	693	695	700	689	1 8
	3	703	692	694	695	689	688	690	690	690	689	688	687	687	683	680	690	690	690	688	690	695	698	700	703	691	1 17
	4	697	688	687	687	688	682	682	680	680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	682	683	681	680	678	664	673	684	690	690	693	704	703	690	690	686	0 56
	6	682	680	680	681	680	676	678	678	680	677	673	671	670	668	665	670	672	678	673	668	682	690	680	676	676	0 16
	7	679	680	681	678	674	672	677	675	677	674	670	668	667	660	658	670	680	689	690	694	701	700	695	688	679	0 28
	8	682	689	694	689	685	682	682	682	684	682	680	676	672	670	662	660	670	670	672	674	693	697	692	688	680	0 32
	9	682	680	680	682	682	680	680	680	680	681	682	679	677	679	677	680	680	680	672	662	673	674	675	677	678	0 24
	10	680	679	675	679	676	675	677	676	678	675	672	672	672	670	663	680	688	678	673	677	685	692	685	680	677	0 20
	11	682	680	676	676	677	678	678	679	680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	12	—	—	—	—	—	—	—	—	—	675	670	668	666	665	660	669	670	666	662	670	688	682	680	680	674	0 8
	13	678	683	678	678	679	677	675	677	677	676	675	672	670	668	662	670	682	680	672	687	695	692	684	677	678	0 24
	14	680	678	677	675	674	677	680	678	680	678	676	672	668	662	662	672	685	695	689	682	683	687	681	673	678	0 24
	15	674	676	679	680	680	680	680	680	680	679	678	673	668	670	660	660	664	669	670	670	683	700	692	683	676	0 16
	16	680	680	678	678	679	680	680	680	680	678	676	673	670	662	654	660	680	682	677	662	676	688	683	686	676	0 16
	17	682	679	679	679	680	680	681	680	677	677	676	673	670	662	658	662	672	679	680	683	692	701	683	672	677	0 20
	18	680	678	679	680	679	676	680	680	682	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	19	—	—	—	—	—	—	—	—	—	679	675	676	678	662	655	660	674	689	687	684	683	687	673	675	677	0 20
	20	682	679	677	676	674	672	673	673	672	675	678	670	663	665	652	669	660	660	658	660	672	678	681	682	671	0 59 56
	21	682	677	678	675	677	673	674	678	674	677	680	676	672	670	658	658	672	675	670	672	689	697	690	683	676	1 0 16
	22	678	678	677	678	676	676	675	680	678	679	680	675	670	670	653	667	670	672	680	677	675	675	672	680	675	0 12
	23	682	684	680	680	680	675	680	680	680	680	680	676	672	670	670	669	676	675	678	690	697	706	700	694	681	0 36
	24	692	688	684	690	682	682	688	688	688	689	690	690	691	689	676	679	688	690	689	690	706	716	710	705	691	1 17
	25	699	693	690	689	688	687	686	690	690	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	26	—	—	—	—	—	—	—	—	—	687	683	681	680	680	670	664	668	680	683	684	696	700	688	682	685	0 52
	27	688	687	688	688	685	682	690	690	690	683	675	670	665	660	653	665	672	688	680	675	680	687	684	680	679	0 28
	28	685	692	697	699	698	702	700	700	697	690	682	675	668	670	660	659	669	678	692	707	700	700	701	703	689	1 8
	29	696	692	691	691	691	691	690	689	690	687	683	680	678	670	658	650	659	668	679	692	697	692	688	680	683	0 44
30	681	685	688	690	690	690	690	695	690	685	680	673	666	665	655	650	660	680	692	684	693	700	693	688	682	1 0 40	
Means.....	1685	1684	1683	1684	1683	1681	1683	1683	1683	1682	1680	1676	1673	1670	1663	1668	1675	1680	1679	1680	1689	1693	1688	1686	1680	1680	—
Declination	60 52	60 48	60 44	60 48	60 44	60 36	60 44	60 44	60 44	60 40	60 32	60 16	60 4	59 52	59 24	59 44	60 12	60 32	60 28	60 32	61 8	61 25	61 4	60 56	.....	1 0 32	
Mean Hourly Variations from Monthly Mean.	20	16	12	16	12	4	12	12	12	8	0	-16	-28	-40	-68	-48	-20	0	-4	0	36	53	32	24	—	—	
DECEMBER 1854. Declination Magnetometer.																											
	1	1680	1682	1688	1684	1692	1697	1706	1702	1710	1708	1705	1702	1698	1659	1667	1659	1660	1670	1688	1701	1710	1707	1701	1690	1690	1 1 13
	2	690	700	698	694	695	692	694	690	690	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	686	0 56
	3	—	—	—	—	—	—	—	—	—	687	683	684	685	678	662	662	670	675	678	680	688	693	693	700	686	—
	4	—	—	—	—	—	—	—	—	—	685	685	679	672	670	660	660	668	671	680	682	684	690	700	700	683	0 44
	5	690	688	690	690	687	690	690	687	685	680	680	676	672	670	667	660	670	678	680	686	688	699	700	700	683	0 44
	6																										

Correction for $\frac{1}{2}$ Faht. = $\frac{3.3963}{\text{sec.}}$ Ditto to Ther. = $-\frac{0.5}{\text{°}}$

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^{\circ} 15' = 0.00008264$$

Zero for Magnetometer at Themr. $88.8 = 1497$.Ditto reduced to standard temperature $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	1 + $\frac{\Delta X}{X}$		
Madras Mean Time.		P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					h.m.	
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41						
JANUARY 1854. Horizontal Force Magnetometer.		1853 Decr. 31	755	772	780	783	777	770	774	780	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	696	82	778	1.003612	
		1	—	—	—	—	—	—	—	—	—	740	700	701	702	680	643	595	628	528	550	568	610	685	700	710	902	93	995	1818	
		2	792	840	877	890	899	919	938	983	1030	997	965	932	900	898	883	822	794	824	852	853	900	957	968	940	803	110	913	2496	
		3	890	910	908	896	881	891	900	895	891	875	860	853	847	800	755	701	633	561	578	632	704	772	820	818	738	123	861	2926	
		4	800	784	780	784	784	780	775	769	764	762	760	757	755	740	728	688	640	606	614	658	699	740	771	773	695	125	820	3264	
		5	752	754	762	776	787	739	690	713	737	739	742	735	728	720	697	632	562	532	524	578	627	699	727	736	707	112	819	3272	
		6	748	748	739	748	754	752	749	739	730	730	731	725	720	707	695	680	630	590	580	618	660	700	739	755					
		7	743	728	734	736	734	758	780	759	740	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
		8	—	—	—	—	—	—	—	—	—	771	802	792	782	778	780	772	700	645	610	650	692	739	767	782	741	71	812	3330	
		9	804	814	818	822	823	821	817	804	792	801	810	806	802	790	785	750	732	690	685	718	760	808	822	828	788	36	824	3331	
		10	821	824	823	818	810	810	808	804	802	796	790	782	774	766	749	718	672	630	586	567	590	642	697	765	744	24	768	3694	
		11	780	792	792	819	843	830	816	813	812	803	795	788	782	770	740	700	672	640	618	646	699	748	799	828	764	46	810	3347	
		12	826	856	838	837	832	823	812	830	850	825	800	793	787	772	742	720	675	620	577	603	670	738	799	818	768	58	826	3215	
		13	815	817	830	817	800	797	793	782	772	771	770	770	770	764	734	695	652	624	604	617	670	738	780	797	749	66	815	3305	
		14	792	792	780	796	808	789	768	777	788	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
		15	—	—	—	—	—	—	—	—	—	790	792	783	774	760	720	665	609	562	570	614	688	752	803	808	741	67	808	3364	
		16	793	789	777	784	787	782	776	780	785	780	775	771	768	770	749	715	720	668	620	667	698	767	829	830	758	59	817	3289	
		17	874	947	928	891	851	821	790	806	824	812	800	805	810	750	762	740	694	670	624	662	718	777	813	834	792	48	840	3099	
		18	829	840	864	854	840	836	830	808	787	793	800	798	797	790	774	732	682	660	617	610	635	706	754	779	767	46	813	3322	
		19	811	831	820	803	782	852	920	905	892	861	830	820	810	770	765	772	719	674	673	660	680	729	793	849	793	47	840	3099	
		20	858	831	825	804	780	818	855	812	770	777	785	792	799	790	788	757	713	680	662	630	653	708	757	782	768	63	831	3174	
		21	808	782	798	791	780	816	850	818	788	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
		22	—	—	—	—	—	—	—	—	—	769	750	748	747	742	737	698	660	620	580	591	653	678	700	730	735	52	787	3537	
		23	748	770	792	802	808	815	821	834	848	841	835	819	804	798	776	765	770	772	730	728	761	780	789	777	791	48	839	3107	
		24	782	809	822	839	852	839	825	815	807	802	798	784	770	755	732	710	687	664	640	632	648	672	699	719	754	63	817	3289	
		25	730	741	740	744	745	743	740	739	740	734	729	719	710	680	685	688	650	640	625	627	618	642	650	682	698	78	776	3628	
		26	739	770	745	742	735	733	730	727	726	717	708	699	690	666	650	637	620	604	610	617	625	642	670	681	687	83	770	3677	
		27	692	712	734	729	720	721	720	714	710	705	700	690	681	666	652	628	595	556	550	557	590	632	670	673	667	97	764	3727	
		28	670	688	698	696	690	677	663	662	662	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
		29	—	—	—	—	—	—	—	—	—	701	740	737	735	710	697	678	630	590	574	560	599	658	717	788	676	95	771	3669	
		30	840	828	768	772	772	782	790	789	790	765	740	746	752	749	730	720	693	680	669	652	683	700	739	760	746	96	842	3083	
		31	778	772	809	791	769	770	770	751	733	736	740	725	711	720	720	699	650	602	570	560	605	672	698	733	712	98	810	3347	
		Means.....		788	798	799	799	794	796	796	793	791	785	780	773	767	752	736	707	670	635	618	632	672	722	758	777	747			
Temp. Corrections		53	56	61	64	66	68	69	71	72	75	76	80	84	91	98	102	98	89	80	74	67	62	58	55		74				
Corrected Means.		841	854	860	863	860	864	865	864	863	860	856	853	851	843	834	809	768	724	698	706	739	784	816	832			821			
Mean Hourly Variations from Monthly Mean. = .00		-20	-33	-39	-42	-39	-43	-44	-43	-42	-39	-35	-32	-30	-22	-13	1														

Correction for 1 Faht. = $\frac{\text{scd.}}{3.3963}$ Zero. for Magnetometer at Themr. $88.8 = 1497$.Ditto to Ther. = -0.5 $k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15' = 0.00008264$ Ditto reduced to standard temperature $80^\circ = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$		
Madras Mean Time.	P.M. h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41						
FEBRUARY 1854. Horizontal Force Magnetometer.	1	742	750	762	769	765	779	791	780	759	751	740	720	703	700	705	699	680	653	625	630	644	685	723	750	721	84	805	1.003348	
	2	769	785	796	801	795	784	771	781	781	776	768	766	768	753	750	720	708	672	650	645	690	737	769	790	751	37	788	3529	
	3	801	798	799	802	794	799	803	802	792	786	777	793	812	780	753	748	730	693	678	625	597	655	710	770	754	11	765	3718	
	4	800	811	882	877	860	856	850	849	839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5	—	—	—	—	—	—	—	—	—	840	838	837	840	834	805	773	720	725	710	715	722	755	770	835	806	-1	805	3348	
	6	860	855	849	859	857	858	858	848	829	821	810	818	830	818	796	772	745	710	702	703	742	771	804	829	806	-2	804	3397	
	7	872	865	850	849	836	834	830	844	848	841	830	826	825	812	783	733	700	672	679	688	752	774	809	830	799	-6	793	3487	
	8	854	874	870	868	855	841	826	819	802	814	822	812	805	792	763	712	680	645	609	630	690	739	778	800	779	-7	772	3660	
	9	808	815	825	836	835	843	850	836	813	843	870	840	814	848	810	823	802	753	701	710	680	692	789	900	806	-13	793	3487	
	10	931	945	913	930	935	919	902	910	908	911	910	913	920	923	888	829	777	736	755	745	810	919	995	1077	892	-9	883	2745	
	11	1120	1161	1123	1134	1134	1172	1209	1229	1239	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	12	—	—	—	—	—	—	—	—	—	1046	850	866	885	859	837	809	748	705	685	700	720	811	878	890	950	-17	933	2330	
	13	900	917	907	935	951	947	942	947	942	948	950	938	930	922	910	878	830	794	766	731	752	799	852	840	885	-47	838	3116	
	14	842	857	898	960	1010	1012	1013	996	970	983	992	979	970	898	865	870	836	795	830	805	853	878	940	952	917	-54	863	2909	
	15	942	1000	960	1009	1046	1044	1040	1015	980	977	970	962	958	930	879	870	872	857	832	820	910	892	904	930	942	-49	893	2661	
	16	999	980	971	974	965	973	980	965	940	927	910	911	915	905	894	880	855	828	820	814	819	830	871	950	912	-52	860	2934	
	17	970	962	953	928	891	871	849	893	928	907	883	889	898	881	883	885	888	830	788	760	752	790	819	867	874	-41	833	3157	
	18	900	927	910	920	918	915	910	894	869	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	19	—	—	—	—	—	—	—	—	—	871	870	862	857	859	840	829	797	782	740	731	780	818	863	870	856	-22	834	3149	
	20	887	869	862	867	860	859	856	857	849	848	843	835	830	825	802	778	748	725	720	713	733	757	787	802	813	-15	798	3447	
	21	820	831	840	850	848	851	853	842	822	829	832	824	820	812	800	781	750	726	702	730	775	790	801	804	806	-14	792	3495	
	22	797	790	814	817	809	810	810	819	818	810	798	791	788	780	757	728	681	658	652	670	700	740	785	802	768	-8	760	3760	
	23	820	841	838	835	820	821	820	825	820	827	830	824	822	802	772	742	700	669	670	675	680	731	755	762	779	-9	770	3677	
	24	770	780	788	794	788	804	819	892	956	938	916	911	910	908	892	821	840	851	860	827	820	854	890	1001	860	-12	848	3033	
	25	1082	1024	922	967	1000	1030	1058	999	930	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	26	—	—	—	—	—	—	—	—	—	936	939	909	882	870	868	831	790	808	780	795	840	883	879	880	913	-19	894	2653	
	27	890	912	920	956	980	956	931	914	888	879	867	872	880	868	860	829	851	797	740	750	792	850	917	970	878	-26	852	2999	
	28	958	938	916	936	945	958	969	949	920	908	892	876	863	880	862	828	757	694	690	658	692	770	832	912	858	-34	824	3231	
Means	881	887	882	895	896	897	898	896	885	876	863	857	855	844	824	799	770	741	724	720	748	788	830	867	838					
Temp. Corrections	-35	-33	-24	-21	-19	-18	-17	-15	-13	-10	-7	-3	-1	4	12	16	10	1	-8	-16	-23	-30	-35	-39	.....	-14				
Corrected Means..	846	854	858	874	877	879	881	881	872	866	856	854	854	848	836	815	780	742	716	704	725	758	795	828	.....	.....	824			
Mean Hourly Variations from Monthly Mean.	-22	-30	-34	-50	-53	-55	-57	-57	-48	-42	-32	-30	-30	-24	-12	9	44	82	108	120	99	66	29	-4	.....	$1 + \frac{\Delta X}{X}$	.....	1.003231		
	-0182	-0248	-0281	-0413	-0438	-0454	-0471	-0471	-0397	-0348	-0265	-0248	-0248	-0198	-0100	0074	0364	0678	0892	0992	0818	0546	0240	-0033	.....					
FEBRUARY 1854. Temperature of Horizontal Force Magnetometer.	1	788	786	783	782	781	781	780	780	778	776	774	773	770	770	770	770	775	779	782	786	790	795	798	7803					
	2	798	798	795	794	793	792	792	791	791	790	790	790	789	787	786	788	791	795	798	800	803	806	808	7940					
	3	808	808	804	803	802	801	801	801	801	800																			

Correction for 1 Faht. = $\frac{\text{scd.}}{3.3963}$ Ditto to Ther. = $-\frac{0.5}{\circ}$

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15' = 0.00008264$$

Zero. for Magnetometer at Themr. $88.8 = 1497$.Ditto. reduced to standard temperature $80^\circ = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$			
Madras Mean Time.	P.M. h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41							
MARCH 1854. Horizontal Force Magnetometer.	1	940	937	895	915	925	924	924	906	890	885	880	875	873	868	860	822	783	744	730	732	770	805	860	895	860	- 35	825	1.003223		
	2	912	902	909	911	904	901	898	888	879	885	890	857	827	790	820	790	748	731	700	685	674	731	792	800	826	- 53	773	3652		
	3	837	873	913	931	939	904	869	873	878	873	867	842	820	856	849	828	788	748	727	700	698	766	867	890	839	- 52	787	3537		
	4	924	938	971	952	924	907	890	904	920	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5	—	—	—	—	—	—	—	—	—	—	—	915	910	900	894	884	890	838	772	720	684	680	714	772	850	898	860	- 78	782	3578
	6	960	945	932	939	937	928	920	899	880	897	914	916	922	890	884	858	810	760	768	780	805	868	903	996	888	- 92	796	3463		
	7	988	962	992	988	975	961	948	952	958	949	940	932	927	920	900	884	849	800	792	812	850	890	936	965	928	-107	813	3322		
	8	1000	978	979	978	968	968	969	970	972	966	960	943	930	918	918	870	830	800	790	795	823	878	922	960	920	-142	778	3612		
	9	962	957	970	979	978	990	1003	983	964	967	970	959	952	950	930	889	840	797	769	778	808	857	910	958	922	-147	775	3636		
	10	980	968	968	964	950	949	949	948	949	949	948	942	939	922	905	870	841	760	736	775	826	897	935	955	909	-137	772	3660		
	11	938	945	941	945	940	945	950	944	940	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	13	930	913	909	908	897	919	942	930	919	924	928	921	918	879	852	825	757	700	668	665	745	793	876	960	862	-106	756	3793		
	14	985	972	973	980	977	968	959	947	937	926	915	901	890	900	890	810	753	681	677	703	735	798	865	913	877	-102	775	3636		
	15	933	920	912	907	893	901	910	909	910	916	921	935	953	989	1030	1075	970	872	820	848	917	985	1060	1083	940	- 86	854	2983		
	16	1057	1083	1081	1075	1060	1048	1037	978	920	953	986	966	949	970	962	905	867	849	847	880	957	1010	1062	1022	980	- 76	904	2570		
	17	1013	990	1003	996	980	968	957	958	960	951	941	922	906	902	884	860	814	766	760	724	768	843	882	913	903	- 73	830	3182		
	18	923	946	941	944	938	926	915	921	928	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	890	898	892	907	912	892	873	881	891	895	899	883	870	865	827	815	780	739	720	722	762	833	880	907	851	- 52	799	3438		
	21	900	886	890	913	926	926	927	913	900	896	892	880	872	867	839	802	748	699	763	725	768	835	897	900	857	- 92	765	3718		
	22	883	905	900	909	908	929	950	945	942	917	892	903	918	906	890	855	785	736	717	760	805	850	870	892	874	-113	761	3752		
	23	900	910	930	957	975	971	967	954	942	946	950	938	930	927	900	883	860	822	790	790	834	882	906	929	908	-142	766	3710		
	24	929	923	921	922	914	913	912	926	942	936	930	918	910	902	870	837	769	708	652	690	763	842	897	930	869	-136	733	3983		
	25	948	940	960	986	1002	990	978	962	947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	27	966	972	986	964	932	940	949	939	931	921	910	923	940	938	941	950	960	940	971	1002	1050	1190	1290	1291	992	-127	865	2892		
	28	1287	1327	1228	1260	1282	1239	1197	1173	1150	1105	1060	1049	1042	1051	1022	1032	967	930	915	938	990	1049	1087	1085	1103	-148	955	2148		
	29	1090	1096	1100	1128	1147	1123	1099	1096	1095	1098	1100	1074	1052	1039	1027	964	902	847	838	866	938	1016	1060	1075	1036	-155	881	2760		
	30	1082	1089	1065	1067	1059	1054	1050	1029	1010	1023	1035	1026	1022	968	902	850	789	715	712	745	817	898	973	1055	960	-154	806	3380		
	31	1118	1135	1100	1098	1086	1066	1047	1042	1038	1029	1020	1009	1002	1005	992	937	880	830	790	820	889	968	1010	1029	998	-155	843	3074		
	Means.....	973	974	973	979	975	969	963	954	948	944	941	931	924	918	907	875	826	777	761	775	820	884	937	966	912					
Temp. Corrections	-136	-133	-123	-118	-115	-112	-109	-105	-103	-99	-97	-92	-88	-82	-75	-73	-81	-89	-100	-110	-121	-129	-134	-139	.....	-107					
Corrected Means..	837	841	850	861	860	857	854	849	845	845	844	839	836	836	832	802	745	688	661	665	699	755	803	827	.....	.....	805				
Mean Hourly Variations from Monthly Mean.	-00	-32	-36	-45	-56	-55	-52	-49	-44	-40	-40	-39	-34	-31	-31	-27	3	60	117	144	140	106	50	2	-22	.....	$1 + \frac{\Delta X}{X} =$	.....	1.003383		
	-0265																														

Correction for 1 Faht. = $\frac{\text{sec.}}{3.3963}$ Zero. for Magnetometer at Themr. $88.8 = 1497$.Ditto to Ther. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15' = 0.00008264$$

Ditto reduced to standard temperature $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
APRIL 1854. Horizontal Force Magnetometer.				5.9 *		0.7 *		1.9 *		0.4 *		-0.7 *																	
	1	1041	1050	1032	1037	1030	1022	1012	1009	1003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	963	-178	785	1.003553
	2	—	—	—	—	—	—	—	—	—	992	980	985	992	990	994	945	891	829	775	790	847	899	956	1009	998	-185	813	3322
	3	1022	1020	1032	1074	1105	1088	1070	1042	1010	1012	1014	1007	1002	999	1000	952	912	879	854	890	939	984	1013	1030	974	-184	790	3512
	4	1040	1028	1025	1027	1018	1021	1022	1018	1010	1014	1018	1002	987	994	995	986	920	859	798	819	850	921	980	1019	988	-196	792	3495
	5	1022	1034	1078	1059	1028	1045	1061	1052	1040	1044	1048	1032	1018	1004	982	945	900	845	818	820	870	932	993	1040	1014	-215	799	3438
	6	1048	1044	1107	1112	1105	1072	1038	1036	1030	1023	1015	1002	990	983	1000	960	932	890	882	912	970	1032	1068	1090	1051	-227	824	3231
	7	1093	1087	1042	1067	1080	1085	1089	1086	1080	1077	1073	1066	1060	1051	1035	1010	958	922	932	960	1022	1079	1122	1150	1051	-227	824	3231
	8	1120	1132	1112	1104	1085	1084	1082	1085	1084	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1050	-247	803	3405
	9	—	—	—	—	—	—	—	—	—	1068	1052	1045	1040	1029	1041	994	948	948	954	950	1001	1058	1070	1104	1050	-247	803	3405
	10	1117	1102	1110	1114	1107	1103	1097	1098	1095	1087	1078	1054	1032	1054	998	1130	1162	1310	1426	1603	1578	1585	1554	1806	1225	-269	956	2140
	11	1783	1615	1560	1536	1500	1466	1430	1394	1355	1336	1316	1292	1269	1249	1262	1170	1126	1087	940	1010	1069	1117	1168	1220	1303	-274	1029	1537
	12	1244	1268	1233	1239	1233	1233	1232	1228	1220	1216	1212	1186	1162	1151	1156	1130	1050	985	877	887	960	1020	1088	1156	1140	-274	866	2884
	13	1178	1158	1151	1171	1179	1190	1199	1210	1217	1196	1175	1169	1165	1150	1128	1085	1029	961	913	849	893	978	1095	1117	1107	-269	838	3116
	14	1102	1108	1110	1147	1172	1197	1220	1266	1309	1335	1360	1333	1307	1249	1231	1210	1158	1099	1065	1088	1160	1199	1219	1264	1205	-266	939	2281
	15	1291	1327	1350	1362	1363	1338	1312	1272	1229	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1164	-278	886	2719
	16	—	—	—	—	—	—	—	—	—	1185	1140	1138	1137	1120	1125	1095	1028	944	900	942	991	1047	1114	1190	1087	-274	813	3322
	17	1170	1151	1143	1149	1143	1142	1140	1138	1132	1126	1120	1114	1110	1095	1100	1057	1004	949	925	947	993	1040	1085	1112	1051	-286	765	3718
	18	1130	1127	1137	1130	1112	1098	1082	1078	1070	1066	1062	1055	1050	1020	1006	980	950	890	910	940	1008	1080	1103	1146	1107	-278	829	3190
	19	1132	1100	1100	1116	1121	1139	1156	1142	1125	1123	1120	1114	1110	1118	1104	1092	1051	1060	1055	1088	1082	1117	1110	1102	1090	-276	814	3314
	20	1108	1128	1117	1130	1132	1129	1124	1106	1085	1092	1098	1093	1090	1103	1070	1097	1060	1020	1001	1020	1050	1090	1100	1124	1076	-282	794	3479
	21	1125	1109	1100	1103	1095	1092	1088	1095	1098	1094	1090	1078	1067	1080	1065	1070	1032	1021	1010	1018	1030	1070	1085	1102	1155	-339	816	3297
	22	1120	1159	1166	1169	1160	1147	1132	1124	1113	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1250	-358	892	2669
	23	—	—	—	—	—	—	—	—	—	1123	1132	1124	1117	1122	1145	1160	1170	1122	1094	1122	1190	1240	1259	1308	1119	-330	789	3520
	24	1366	1369	1382	1402	1410	1406	1400	1365	1327	1299	1271	1251	1232	1180	1160	1112	1070	1072	1058	1110	1172	1214	1200	1182	1062	-296	766	3710
	25	1173	1180	1192	1202	1200	1191	1181	1172	1160	1156	1152	1144	1137	1127	1102	1043	1000	979	960	997	1037	1086	1132	1148	1049	-247	802	3413
	26	1154	1148	1120	1127	1122	1117	1111	1088	1062	1061	1060	1055	1051	1037	1020	972	953	940	953	965	1010	1082	1120	1160	1005	-236	769	3685
	27	1157	1162	1149	1138	1115	1098	1079	1071	1060	1041	1022	1023	1025	1020	1000	972	948	940	950	980	1018	1069	1073	1065	1049	-247	802	3413
	28	1068	1050	1045	1047	1037	1020	1002	1003	1000	992	983	978	975	962	955	940	900	891	910	1000	1062	1078	1108	1115	1005	-236	769	3685
	29	1100	1080	1059	1050	1030	1035	1039	1038	1034	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1026	-242	784	3562
30	—	—	—	—	—	—	—	—	—	1032	1030	1019	1010	1002	990	988	970	964	960	972	993	1049	1080	1099	1026	-242	784	3562	
Means.....	1156	1149	1146	1152	1147	1142	1136	1129	1118	1112	1105	1094	1085	1076	1067	1044	1005	976	957	987	1032	1083	1116	1154	1090				
Temp. Corrections	-294	-285	-274	-267	-263	-258	-255	-251	-248	-245	-244	-238	-235	-230	-226	-229	-237	-250	-262	-276	-285	-293	-300	-302	.....	-260			
Corrected Means..	86																												

Correction for 1° Faht. = $\frac{\text{scd.}}{3.3963}$

Ditto to Ther. = $-0\cdot5$

$$k = \alpha. \cotan. v. = 0.0003139 \times \cotan. 75^{\circ} 15' = 0.00008264$$

Zero. for Magnetometer at Themr. $88.8 = 1497.$

Ditto reduced to standard temperature $80^{\circ} = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

[illegible]

Correction for 1° Faht. = 3.3963

Ditto to Ther. = -0.5

$$k. = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15' = 0.00008264$$

Zero. for Magnetometer at Ther. $88.8 = 1497$.Ditto reduced to standard temperature $80^\circ = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras. Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
JUNE 1854. Horizontal Force Magnetometer.				1.7 *		0.9 *		-1.6 *		0.8 *		-0.9 *																	
	1	1278	1263	1282	1273	1260	1250	1238	1232	1230	1223	1214	1204	1195	1180	1160	1127	1097	1042	1060	1047	1108	1149	1204	1255	1190	-433	757	1.003785
	2	1265	1260	1262	1265	1265	1247	1227	1214	1204	1198	1190	1184	1180	1167	1158	1125	1078	1040	1032	1027	1094	1150	1180	1220	1176	-441	735	3966
	3	1233	1234	1230	1207	1180	1184	1187	1189	1195																			
	4										1207	1217	1208	1200	1172	1147	1120	1115	1080	1082	1126	1158	1200	1240	1260	1182	-444	738	3942
	5	1230	1230	1220	1223	1222	1221	1218	1211	1207	1194	1180	1183	1187	1170	1167	1135	1138	1108	1097	1092	1127	1146	1205	1220	1180	-430	750	3843
	6	1220	1210	1207	1201	1192	1183	1173	1160	1150	1147	1142	1136	1132	1130	1119	1075	1030	993	980	980	1043	1124	1202	1242	1132	-412	720	4091
	7	1262	1280	1262	1248	1230	1229	1227	1212	1200	1189	1177	1165	1154	1150	1121	1113	1097	1062	1059	1070	1102	1155	1188	1212	1174	-414	760	3760
	8	1197	1200	1198	1197	1192	1179	1165	1156	1150	1146	1140	1134	1130	1122	1089	1062	985	963	965	1003	1060	1107	1142	1170	1119	-385	734	3975
	9	1164	1149	1148	1141	1130	1125	1118	1106	1097	1093	1088	1077	1068	1050	1034	1004	962	927	934	942	993	1040	1072	1098	1065	-331	734	3975
	10	1112	1120	1110	1108	1103	1092	1080	1085	1093																			
	11										1062	1030	1028	1028	1020	1000	1032	1019	1090	1112	1122	1117	1103	1149	1157	1082	-329	753	3818
	12	1209	1220	1249	1246	1240	1235	1229	1203	1180	1176	1170	1140	1112	1110	1095	1120	1063	1077	1069	1095	1149	1205	1232	1280	1171	-328	843	3074
	13	1362	1324	1262	1245	1225	1219	1212	1192	1175	1183	1190	1177	1165	1148	1140	1126	1130	1052	1027	1017	1030	1080	1117	1190	1166	-378	788	3529
	14	1250	1273	1239	1218	1193	1187	1180	1173	1170	1163	1154	1151	1150	1150	1147	1132	1107	1090	1022	1000	972	1050	1110	1163	1144	-380	764	3727
	15	1201	1209	1209	1208	1203	1207	1209	1208	1210	1206	1200	1176	1154	1164	1154	1125	1069	1015	998	1050	1082	1133	1199	1270	1161	-383	778	3612
	16	1287	1241	1238	1225	1208	1203	1197	1193	1192	1175	1157	1153	1150	1152	1145	1132	1098	1080	1095	1120	1188	1215	1232	1243	1180	-385	795	3471
	17	1210	1205	1210	1204	1195	1189	1182	1169	1159																			
	18										1151	1142	1144	1148	1133	1110	1090	1052	1036	1010	1030	1040	1077	1138	1170	1133	-361	772	3660
	19	1168	1169	1154	1149	1141	1135	1128	1122	1120	1116	1110	1109	1110	1100	1079	1060	1029	1010	1004	1030	1055	1125	1135	1166	1105	-346	759	3768
	20	1180	1192	1167	1166	1162	1157	1150	1137	1127	1122	1115	1113	1113	1112	1100	1077	1048	1022	1010	1022	1027	1030	1082	1138	1107	-351	756	3793
	21	1168	1160	1163	1161	1155	1152	1147	1138	1133	1106	1078	1108	1140	1130	1095	1075	1055	1013	979	980	1012	1070	1112	1150	1103	-371	732	3991
	22	1172	1158	1160	1166	1169	1167	1164	1152	1143	1121	1097	1069	1042	1099	1070	1040	1034	1000	992	1032	1100	1172	1202	1200	1113	-386	727	4033
	23	1155	1110	1112	1133	1150	1161	1170	1158	1150	1147	1142	1131	1122	1120	1103	1082	1041	1000	972	1010	1015	1040	1072	1132	1101	-371	730	4008
	24	1130	1142	1150	1145	1137	1132	1126	1119	1115																			
	25										1068	1020	1018	1018	1010	1005	1000	991	980	972	985	994	1003	1009	1016	1054	-309	745	3884
	26	1024	1026	1029	1027	1022	1022	1021	1018	1018	1010	1000	1004	1010	1000	993	986	978	972	978	956	910	968	1030	1095	1004	-265	739	3933
	27	1090	1095	1060	1060	1057	1049	1040	1028	1019	1020	1020	1019	1020	1013	980	960	925	883	872	893	928	970	1015	1053	1003	-274	729	4016
	28	1070	1073	1061	1056	1048	1041	1033	1021	1012	1012	1010	995	982	968	960	972	943	914	880	896	913	938	997	1055	994	-285	709	4181
	29	1080	1094	1070	1077	1080	1080	1078	1068	1062	1061	1058	1048	1040	1030	1027	999	960	929	900	910	940	962	1008	1036	1025	-292	733	3983
	30	1048	1040	1019	1022	1021	1016	1010	1003	1000	1006	1010	1004	1000	998	975	962	940	922	920	915	933	962	978	1010	988	-262	726	4041
Means.....	1183	1180	1172	1168	1161	1156	1150	1141	1135	1127	1117	1111	1106	1100	1084	1067	1038	1012	1001	1013	1042	1084	1125	1162					

Correction for 1 Faht. = 3.3963

Ditto to Ther. = 0.5

 $k. = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15' = 0.00008264$

HORIZONTAL FORCE MAGNETOMETER.

Zero. for Magnetometer at Ther. $88.8 = 1497$.Ditto reduced to standard temperature $80 = 1215$.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras Mean Time.		P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.	Temperature Corrections	Corrected Means.	$1 + \frac{\Delta X}{X}$
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
JULY 1854. Horizontal Force Magnetometer.					3.1 *		1.1 *		-1.3 *		2.1 *		-0.2 *																	
	1	1057	1050	1050	1048	1040	1036	1030	1026	1024	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1015	-269	746	1.003876
	2	—	—	—	—	—	—	—	—	—	1034	1040	1032	1025	1040	1003	1000	999	949	926	940	951	997	1046	1020	1015	-243	763	3735	
	3	1011	1039	1032	1040	1041	1059	1075	1047	1022	1014	1002	1005	1008	990	980	971	970	988	940	935	927	965	1033	1060	1006	-232	750	3843	
	4	1072	1054	1037	1035	1027	1025	1020	1018	1018	1001	980	986	992	979	952	935	910	875	887	890	930	943	988	1012	982	-263	747	3868	
	5	1042	1057	1071	1074	1071	1053	1032	1025	1020	1022	1020	1017	1015	1010	995	990	953	942	940	950	957	969	990	1020	1010	-277	704	4222	
	6	1060	1072	1066	1063	1053	1048	1040	1031	1025	1025	1020	1011	1002	990	973	934	879	840	812	832	848	920	973	1020	981	-276	724	4058	
	7	1046	1050	1058	1063	1061	1054	1045	1041	1040	1036	1028	1018	1008	980	953	947	893	900	864	871	914	947	1030	1153	1000	-245	789	3520	
	8	1199	1180	1151	1129	1101	1138	1172	1119	1068	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1034	-210	877	2793	
	9	—	—	—	—	—	—	—	—	—	1073	1073	1067	1062	1040	999	989	940	910	859	830	839	902	955	1030	1087	-205	826	3215	
	10	1087	1099	1113	1100	1080	1092	1102	1092	1084	1094	1100	1092	1084	1092	1078	1080	1062	1040	1010	1028	1077	1130	1145	1138	1031	-247	792	3495	
	11	1121	1101	1090	1094	1092	1083	1072	1069	1068	1063	1054	1051	1048	1030	1009	980	950	922	920	911	939	970	1025	1087	1039	-233	771	3669	
	12	1120	1134	1100	1103	1100	1088	1074	1069	1066	1050	1030	1040	1050	1048	1037	1017	960	899	887	890	960	1040	1067	1098	1039	-219	807	3372	
	13	1110	1091	1065	1061	1050	1045	1037	1037	1040	1038	1032	1026	1020	1010	990	972	920	910	910	855	849	908	1020	1093	1004	-164	770	3677	
	14	1110	1127	1099	1088	1070	1065	1057	1052	1050	1041	1028	1020	1012	1010	1020	1012	979	950	938	957	970	982	994	1004	934	-183	755	3801	
	15	1015	1012	992	988	978	975	970	961	955	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	938	-215	737	3950	
	16	—	—	—	—	—	—	—	—	—	947	934	938	942	940	942	940	912	870	833	820	831	855	898	962	952	-251	743	3900	
	17	1000	1012	1000	992	977	974	968	968	970	968	962	956	950	950	942	928	887	869	840	821	837	863	899	967	994	-305	696	4289	
	18	1007	1012	997	1003	1002	992	980	979	981	980	974	975	976	980	960	930	909	880	860	847	861	890	902	970	1001	-287	725	4049	
	19	992	1015	1012	1015	1012	1007	1000	1045	1092	1063	1029	1014	1000	995	978	968	940	920	917	920	928	974	1000	1030	1012	-278	737	3950	
	20	1036	1067	1061	1070	1072	1070	1066	1053	1042	1039	1031	1022	1013	995	980	952	920	890	842	819	950	962	1010	1066	1036	-262	821	3256	
	21	1090	1100	1099	1098	1090	1077	1062	1050	1040	1037	1030	1025	1020	1010	992	960	937	900	878	885	911	968	995	1037	1061	-282	779	3603	
	22	1048	1051	1051	1058	1059	1056	1050	1045	1042	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1047	-307	740	3925	
	23	—	—	—	—	—	—	—	—	—	1048	1050	1040	1030	1020	1010	990	950	904	910	922	980	990	1017	1050	1061	-311	785	3553	
	24	1167	1210	1230	1194	1151	1123	1092	1091	1092	1085	1073	1066	1060	1059	1040	1025	1002	970	970	955	1017	1088	1113	1130	1036	-312	724	4058	
	25	1157	1170	1139	1129	1112	1110	1105	1096	1090	1088	1081	1084	1087	1070	1050	1028	998	949	930	941	954	979	1037	1071	1061	-257	762	3762	
	26	1094	1100	1094	1095	1090	1087	1082	1076	1072	1069	1062	1061	1060	1049	1048	1051	1010	974	950	947	949	980	1031	1108	1047	-282	779	3603	
	27	1135	1180	1199	1197	1188	1195	1200	1198	1198	1174	1145	1142	1139	1118	1079	1020	1001	944	909	919	937	1002	1035	1050	1096	-307	740	3925	
	28	1070	1064	1050	1054	1051	1058	1062	1055	1050	1051	1047	1038	1030	1032	1006	1002	970	950	962	995	1031	1062	1089	1077	1036	-319	733	3983	
	29	1080	1105	1129	1108	1080	1076	1070	1057	1046	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1052	-297	754	3810	
	30	—	—	—	—	—	—	—	—	—	1052	1053	1057	1062	1057	1049	1028	990	950	975	969	1010	1045	1088	1110	1051	-257	762	3762	
31	1131	1120	1124	1115	1100	1091	1080	1078	1078	1071	1060	1056	1052	1050	1037	1020	1012	998	963	1057	1070	927	952	987	1051	-297	754	3810		
Means.....		1079	1																											

Correction for 1 Faht. = $\frac{\text{sec.}}{3 \cdot 3963}$ Ditto to Ther. = $-\frac{0 \cdot 5}{\text{°}}$ $k. = a. \cotan. v. = 0 \cdot 0003139 \times \cotan. 75 \frac{1}{2} = 0 \cdot 00008264$ Zero. for Magnetometer at Ther. $88 \cdot 8 = 1497$.Ditto reduced to standard temperature $80^{\circ} = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	1 + $\frac{\Delta X}{X}$
P.M. Madras Mean Time.		h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					h.m.
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41				
AUGUST 1854. Horizontal Force Magnetometer.					4.4 *		0.7 *		-0.9 *		-1.3 *		-0.9 *																
	1	1011	1030	1070	1070	1062	1062	1060	1046	1033	1030	1030	1029	1030	1022	1010	990	946	920	920	936	960	985	1007	1032	1012	-293	719	1.004099
	2	1055	1062	1060	1063	1058	1051	1042	1034	1028	1018	1010	1004	1000	982	970	964	932	896	855	860	880	891	939	995	985	-309	676	4454
	3	1050	1034	1051	1080	1100	1091	1080	1084	1090	1083	1079	1084	1090	1038	1053	1050	1078	1005	1039	1013	988	1000	1037	1095	1058	-293	765	3718
	4	1150	1127	1109	1119	1120	1101	1080	1064	1049	1061	1075	1059	1045	1060	1012	1042	1020	977	972	968	961	1017	1032	1072	1054	-274	780	3595
	5	1090	1083	1080	1104	1120	1113	1105	1106	1109																			
	6										1081	1055	1048	1043	1040	1033	1010	972	942	924	950	973	992	1015	1028	1042	-273	769	3685
	7	1065	1087	1088	1079	1061	1059	1055	1047	1040	1039	1040	1024	1010	1013	985	954	918	900	912	939	943	1011	1059	1093	1018	-260	758	3777
	8	1080	1058	1064	1061	1050	1043	1034	1035	1038	1029	1028	1023	1020	1018	1000	980	963	935	955	970	982	1001	1022	1041	1018	-265	753	3818
	9	1057	1040	1042	1046	1041	1041	1039	1035	1032	1020	1010	1008	1008	1003	980	967	946	898	855	848	865	947	1010	1040	991	-265	726	4041
	10	1051	1030	1042	1031	1012	995	977	973	970	956	945	947	950	942	928	922	889	838	822	819	872	917	997	1023	952	-221	731	4000
	11	1055	1060	1029	1024	1010	995	978	977	978	970	965	962	960	958	940	918	895	850	814	833	847	880	957	999	952	-207	745	3884
	12	1017	1005	997	993	980	981	980	979	980																			
	13										959	940	943	948	940	922	895	870	852	840	844	871	907	924	941	938	-208	730	4008
	14	958	963	971	980	980	970	958	949	942	945	950	948	948	940	922	900	865	834	828	857	882	899	950	987	930	-211	719	4099
	15	995	989	992	991	982	981	978	968	960	955	953	951	950	930	910	888	858	830	838	867	890	900	931	960	935	-232	703	4231
	16	972	985	950	959	960	965	968	972	978	973	970	968	968	945	924	890	862	827	820	860	911	962	985	1009	941	-244	697	4281
	17	1021	1025	1042	1038	1025	1014	1001	995	990	974	960	963	968	960	952	935	915	880	874	900	915	968	990	1015	972	-251	721	4083
	18	1008	1001	1010	1009	1000	1002	1002	999	998	993	990	985	982	970	940	920	895	890	873	855	900	933	950	964	961	-241	720	4091
	19	957	948	962	975	980	990	998	993	990																			
	20										1013	1038	1031	1025	1008	969	947	960	978	982	995	1030	1049	1057	1063	997	-230	767	3702
	21	1050	1070	1053	1056	1050	1049	1047	1046	1047	1027	1010	1011	1013	1018	1003	999	962	920	870	882	900	970	1019	1033	1004	-237	767	3702
	22	1050	1027	1021	1031	1033	1027	1019	1019	1020	1014	1010	1008	1007	1000	988	978	953	938	920	913	900	947	985	1017	993	-230	763	3735
	23	1073	1080	1059	1054	1040	1026	1010	1009	1010	994	980	966	953	940	910	889	875	855	870	882	930	960	991	1022	974	-215	759	3768
	24	1097	1055	991	994	988	980	970	958	948	959	972	974	977	960	948	915	930	878	890	900	930	971	990	1030	967	-220	747	3868
	25	1067	1075	1077	1064	1042	1045	1047	1034	1022	1005	990	975	962	970	968	943	947	871	780	902	925	915	962	1019	984	-225	759	3768
	26	1054	1011	1016	1032	1039	1040	1039	1033	1028																			
	27										1015	1005	997	990	985	980	963	932	888	875	922	958	1020	1038	1050	996	-255	741	3917
	28	1064	1032	1034	1036	1030	1027	1022	1014	1008	1007	1009	998	988	973	957	943	905	870	853	841	881	910	950	982	972	-252	720	4091
	29	1010	1025	1012	1015	1010	1011	1010	1003	997	987	980	975	972	957	948	930	898	785	780	797	810	830	878	942	940	-238	702	4239
	30	951	930	932	940	939	945	950	973	998	948	900	901	903	900	890	849	844	832	803	830	840	898	950	970	909	-205	704	4223
	31	991	1005	989	999	1001	991	979	974	970	968	968	965	963	966	952	930	890	882	847	830	865	897	972	1025	951	-222	729	4016
	Means.....		1037	1031	1028	1031	1026	1022	1016	1012	1009	1001	995	991	988	979	963	945	923	888	874	889	911	947	985	1017	979		
Temp. Corrections.		-274	-269	-263	-258	-255	-251	-247	-244	-241	-237	-233	-230	-228	-222	-217	-216	-220	-226	-233	-241	-251	-258	-265	-271	.....	-244		
Corrected Means..		763	762	765	773	771	771	769	768	768	764	762	761	760	757	746	729	703	662	641	648	660	689	720	746	.....	.....	735	
Mean Hourly Variations from Monthly Mean.		-28	-27	-30	-38	-36	-36	-34	-33	-33	-29	-27	-26																

Correction for 1 Faht. = $3.3963^{\text{scd.}}$ Ditto to Ther. = -0.5

$$k. = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15' = 0.00008264$$

Zero. for Magnetometer at Ther. $88.8 = 1497.$ Ditto reduced to standard temperature $80^\circ = 1215.$

HORIZONTAL FORCE MAGNETOMETE.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	$1 + \frac{\Delta X}{X}$	
Madras Mean Time.	P.M. 4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
SEPTEMBER 1854. Horizontal Force Magnetometer.				3.9 *	1.4 *	2.6 *	1.3 *	-1.7 *																					
	1	1040	1022	1026	1026	1019	1001	980	1003	1020	1026	1030	1016	1005	998	982	992	966	950	935	948	960	957	978	1010	995	-246	749	1.003851
	2	1072	1040	1029	1032	1028	1035	1040	1028	1010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	986	-243	743	3900
	3	—	—	—	—	—	—	—	—	—	1001	990	984	981	970	962	950	932	912	927	910	918	955	974	990	951	-226	725	4049
	4	998	987	988	997	998	1004	1008	1002	990	986	979	967	958	937	922	891	860	850	870	893	920	935	937	940	935	-217	718	4108
	5	943	957	964	975	978	973	965	969	968	965	960	962	968	952	950	922	871	837	805	820	872	915	965	980	905	-174	731	4000
	6	965	943	937	941	938	933	925	930	930	926	920	914	912	912	908	882	860	833	821	830	852	880	915	912	851	-146	705	4214
	7	905	896	898	902	899	901	900	898	890	886	880	872	867	867	855	830	794	744	720	732	764	807	833	881	847	-132	715	4132
	8	892	880	890	890	883	877	868	868	862	852	840	833	830	849	859	847	792	745	690	755	823	890	902	908	840	-123	717	4116
	9	900	880	870	885	893	883	870	869	862	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1025	-161	864	2901
	10	—	—	—	—	—	—	—	—	—	871	878	867	860	840	805	830	767	709	700	750	777	822	850	910	952	-186	766	3718
	11	975	990	998	1009	1012	1071	1127	1136	1140	1132	1121	1093	1069	1038	1012	968	934	929	940	957	963	988	995	992	968	-205	763	3735
	12	998	1003	1012	1004	988	990	990	997	998	990	980	965	954	953	960	948	890	849	848	863	880	903	924	958	990	-206	784	3562
	13	978	977	973	979	978	989	997	992	982	980	975	956	940	980	1010	965	930	933	906	940	940	952	1000	982	965	-197	768	3694
	14	1000	998	998	1002	998	998	995	990	980	987	992	993	998	990	1010	1000	979	937	898	927	935	1002	1047	1105	965	—	—	—
	15	1060	1040	1038	1029	1013	1009	1002	1002	996	999	1000	981	966	950	950	899	858	822	866	905	933	932	948	965	943	-173	770	3677
	16	950	968	986	982	971	969	965	969	968	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	967	-199	768	3694
	17	—	—	—	—	—	—	—	—	—	957	943	940	940	940	919	915	895	873	870	900	928	945	960	984	940	-212	728	4025
	18	1007	993	999	1005	1003	989	973	977	975	979	981	973	968	959	948	952	918	880	909	924	948	965	995	990	940	-223	708	4190
	19	990	985	984	991	990	992	991	993	989	976	960	954	952	942	932	897	854	824	820	830	872	918	945	970	931	-236	749	3851
	20	988	995	1017	1020	1015	1000	982	984	980	972	962	961	964	937	950	921	842	780	770	769	803	839	921	980	968	-230	738	3942
	21	1010	990	997	1025	1046	1049	1050	1035	1015	1005	992	972	955	950	982	970	952	888	912	910	923	960	1005	1058	940	-226	714	4140
	22	1032	1030	1011	1031	1044	1035	1023	1022	1015	999	980	977	978	972	960	946	894	855	846	850	893	900	957	980	1009	-239	770	3677
	23	975	965	966	975	976	981	984	979	968	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	966	-243	723	4066
	24	—	—	—	—	—	—	—	—	—	961	952	945	942	940	930	890	829	805	777	825	885	962	1058	1098	1017	-243	774	3644
	25	1115	1110	1137	1126	1107	1107	1105	1081	1052	1032	1009	993	980	970	972	942	894	849	840	874	923	978	1012	1017	1008	-249	759	3768
	26	1002	990	981	983	977	973	967	966	960	960	958	937	920	932	940	987	982	928	888	885	940	997	1040	1090	969	-241	728	4025
	27	1135	1120	1094	1078	1055	1054	1050	1038	1020	1031	1040	1033	1030	1010	1028	992	939	884	850	862	935	1018	1055	1057	1017	—	—	—
	28	1070	1056	1032	1055	1070	1065	1057	1051	1040	1037	1032	1020	1012	1020	1007	990	929	866	840	882	953	1015	1048	1055	1008	—	—	—
29	1050	1032	1022	1019	1009	1013	1015	1005	990	991	990	978	970	965	970	932	880	841	823	845	893	950	1010	1065	969	—	—	—	
Means.....	1002	994	994	998	996	996	993	991	984	980	974	963	957	951	949	930	890	853	843	863	897	935	971	995	954	—	—	—	—
Temp. Corrections	-233	-226	-220	-217	-215	-212	-211	-207	-205	-201	-198	-194	-191	-186	-183	-181	-186	-191	-198	-207	-216	-224	-230	-234	.....	-207	—	—	—
Corrected Means..	769	768	774	781	781	784	782	784	779	779	776	769	766	765	766	749	704	662	645	656	681	711	741						

Correction for 1 Faht. = 3.3963

Zero. for Magnetometer at Ther. 88.8 = 1497.

Ditto to Ther. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15' = 0.00008264$$

Ditto reduced to standard temperature 80 = 1215.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
OCTOBER 1854. Horizontal Force Magnetometer.				1.7		1.7		4.3		-1.4		-0.9																	
	September 30	1060	1013	1010	1004	995	1000	1001	986	963	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	1	—	—	—	—	—	—	—	—	—	945	930	925	921	918	970	909	847	788	755	798	843	911	967	980	935	-206	729	1.004016
	2	971	960	960	968	972	972	968	968	960	949	940	929	920	925	948	888	850	797	770	797	840	908	977	992	922	-199	723	4066
	3	980	960	950	953	952	952	948	953	950	944	940	929	920	910	917	885	830	776	740	774	828	875	910	902	903	-189	714	4140
	4	897	890	923	933	939	932	922	915	900	894	890	877	866	875	864	822	764	707	675	704	768	820	887	900	857	-158	699	4264
	5	891	872	873	874	872	884	892	890	880	881	885	877	870	867	870	830	775	732	702	730	792	840	881	893	848	-168	680	4421
	6	895	900	900	896	889	893	894	901	900	876	855	851	848	815	824	780	723	675	707	702	762	820	871	890	836	-170	666	4537
	7	909	895	895	899	899	892	882	900	910	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	8	—	—	—	—	—	—	—	—	—	1004	1100	1094	1089	1080	1107	1119	1057	1032	1029	1030	1060	1112	1147	1155	1012	-199	813	3322
	9	1169	1120	1106	1104	1098	1095	1088	1087	1078	1061	1047	1038	1030	1035	1030	993	941	888	864	885	930	990	1042	1051	1032	-216	816	3297
	10	1062	1030	1028	1037	1042	1042	1038	1023	999	988	980	974	970	950	935	900	860	800	790	810	862	943	980	1003	960	-206	754	3810
	11	991	980	985	994	999	1000	998	997	987	981	977	972	968	954	938	925	866	819	802	822	879	928	940	980	945	-209	736	3958
	12	1019	990	968	997	1023	1063	1100	1114	1120	1090	1062	1044	1028	1007	985	992	966	898	912	930	992	1047	1085	1057	1020	-205	815	3305
	13	1033	1020	1030	1027	1020	1012	1001	992	974	979	987	983	980	970	945	912	855	809	800	830	893	960	1011	1020	960	-196	764	3727
	14	1000	981	974	981	984	993	999	990	972	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	15	—	—	—	—	—	—	—	—	—	958	947	943	940	932	937	922	874	842	807	821	854	902	952	977	937	-196	741	3917
	16	964	953	970	973	972	964	953	943	925	916	910	905	902	897	893	868	813	764	729	739	775	817	870	890	888	-155	733	3983
	17	884	877	882	874	863	867	867	868	860	855	852	825	800	775	768	730	699	660	654	713	775	815	827	822	809	-105	704	4223
	18	820	808	820	846	868	878	885	877	860	846	834	829	825	825	803	793	760	724	756	753	769	798	805	807	816	-71	745	3884
	19	794	798	831	838	842	835	824	825	818	812	808	802	797	790	768	708	641	602	595	641	720	784	808	814	771	-39	732	3991
	20	782	770	782	795	804	801	794	795	788	783	780	779	779	772	749	690	649	600	570	609	680	744	770	770	743	-23	720	4091
	21	752	742	762	772	778	780	778	792	798	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	22	—	—	—	—	—	—	—	—	—	787	778	774	772	770	750	700	639	612	615	632	699	740	765	780	740	-22	718	4108
	23	760	757	759	761	760	763	762	755	740	743	749	744	741	740	679	662	622	610	629	647	642	723	740	830	722	-34	688	4356
	24	915	888	853	890	924	912	897	891	877	868	862	844	828	817	810	768	730	712	737	690	754	822	892	877	836	-62	774	3644
	25	870	854	915	899	880	868	853	836	810	815	822	814	807	857	870	813	778	746	762	744	788	830	880	910	834	-89	745	3884
	26	897	880	861	862	860	873	882	859	828	849	872	862	854	868	850	810	760	710	668	670	720	793	850	880	826	-97	729	4016
	27	895	902	900	892	880	885	886	874	853	855	860	844	830	824	825	780	733	685	640	671	728	773	820	831	819	-82	737	3950
	28	820	817	829	832	832	834	832	830	820	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	29	—	—	—	—	—	—	—	—	—	809	800	794	790	787	778	755	710	682	652	650	680	730	747	755	774	-66	708	4190
	30	772	782	803	804	802	808	810	825	832	826	822	814	807	804	768	740	718	710	712	722	748	767	780	792	782	-76	706	4206
31	822	833	840	836	828	832	832	833	825	820	818	813	810	820	752	707	642	628	604	646	690	740	768	800	772	-79	693	4314	
Means.....	912	899	904	909	910	912	911	908	897	894	893	884	877	873	864	830	782	741	729	747	795	849	888	902	863				
Temp. Corrections	-151	-146	-142	-139	-138	-134	-132	-129	-128	-125	-124	-121	-119	-115	-112	-112	-114	-118	-125	-132	-138	-142	-145	-146	.....	-130			
Corrected Means..	761	753	762	770	772	778	779	779	769	769	769	763	758	758	752	718	668	623	604	615	657	707	743	756	.....	.....	733		
Mean Hourly Variations from Monthly Mean.	-28	-20	-29	-37	-39	-45	-46	-46	-36	-36	-36	-30	-25	-25	-19	15	65	110	129	118	76	26	-10	-23	.....	$1 + \frac{\Delta X}{X}$			

Correction for 1° Faht. = $\frac{\text{scd.}}{3.3963}$ Ditto to Ther. = $-\dot{0}5$

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15' = 0.00008264$$

Zero. for Magnetometer at Ther. $88.8 = 1497$.Ditto reduced to standard temperature $80^\circ = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$		
Madras Mean Time.	P.M. 4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41						
NOVEMBER 1854. Horizontal Force Magnetometer.										1.1 *																				
	1	841	857	882	912	938	944	943	942	950	930	908	899	894	890	870	825	775	741	738	762	790	848	903	910	871	- 89	782	1.003578	
	2	930	922	912	919	919	920	922	900	878	875	870	865	863	850	832	808	750	730	719	724	772	830	852	873	851	- 96	755	3801	
	3	892	890	900	889	890	870	880	892	870	865	858	857	860	855	843	820	771	729	697	710	750	792	817	840	835	-100	735	3966	
	4	857	831	829	841	842	837	830	827	822	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5	—	—	—	—	—	—	—	—	—	797	770	769	772	768	750	710	665	635	605	627	690	748	780	821	768	- 47	721	4083	
	6	840	833	815	830	829	821	819	812	820	817	812	806	803	800	798	752	730	722	710	740	781	817	840	852	800	- 64	736	3958	
	7	864	845	840	838	828	819	808	800	800	789	775	776	780	775	762	728	720	708	693	717	768	830	893	935	795	- 76	719	4099	
	8	990	1008	1039	1014	989	969	961	896	916	904	890	887	887	880	880	806	805	758	750	742	753	780	802	831	881	- 85	796	3463	
	9	855	860	882	890	877	879	875	870	858	858	856	845	838	830	845	830	807	770	737	725	752	772	788	814	830	- 86	744	3892	
	10	840	852	840	840	830	829	827	826	812	807	800	793	790	793	767	732	690	648	635	642	678	708	729	751	769	- 75	694	4306	
	11	768	772	774	774	780	777	772	770	770	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12	—	—	—	—	—	—	—	—	—	762	751	731	714	705	700	690	670	655	629	635	668	702	733	760	728	- 41	687	4364	
	13	772	824	795	792	791	776	753	760	750	749	745	739	736	732	725	700	657	620	587	593	616	643	680	715	719	- 39	680	4421	
	14	760	770	776	768	769	770	788	748	760	755	747	742	740	735	715	687	640	627	620	634	645	671	705	725	721	- 44	677	4446	
	15	740	760	773	775	781	810	822	810	809	801	790	784	782	775	735	698	640	623	621	645	701	770	800	826	753	- 52	701	4248	
	16	820	807	794	795	797	788	788	780	726	749	770	761	755	750	720	680	642	622	619	630	663	685	708	736	733	- 46	687	4364	
	17	751	760	753	761	761	758	749	762	750	753	753	736	722	720	700	668	632	611	585	620	650	681	710	728	711	- 27	684	4388	
	18	734	740	739	750	769	768	750	742	733	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	19	—	—	—	—	—	—	—	—	—	728	720	702	687	680	642	628	605	590	570	585	600	617	650	682	684	- 1	683	4396	
	20	702	730	713	710	700	698	712	700	670	669	665	656	650	682	640	613	593	580	585	600	628	668	680	708	665	9	674	4471	
	21	729	733	752	746	753	715	712	721	712	714	713	710	710	702	685	660	615	620	620	602	693	680	725	739	698	5	703	4231	
	22	742	730	720	730	730	730	742	742	762	754	743	740	740	752	728	690	655	618	620	627	631	688	720	740	711	- 10	701	4248	
	23	752	740	750	755	764	750	748	740	772	751	727	727	730	722	708	688	640	620	610	618	621	639	667	691	705	- 4	701	4248	
	24	737	771	777	770	736	736	740	747	757	752	744	744	748	751	740	718	691	664	650	648	650	660	693	710	722	- 7	715	4132	
	25	730	750	751	760	762	767	768	773	775	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	26	—	—	—	—	—	—	—	—	—	764	750	744	742	735	722	695	670	652	650	637	654	675	680	700	721	- 24	697	4281	
	27	723	732	739	749	749	760	765	758	769	746	720	708	700	682	659	637	624	638	636	645	678	685	703	725	705	- 20	685	4380	
	28	740	789	791	781	791	880	857	809	790	786	780	759	742	754	730	710	690	665	680	693	700	711	759	772	757	- 3	754	3810	
	29	780	791	803	800	798	788	777	754	760	761	760	759	762	748	724	698	680	683	690	710	730	757	742	750	750	- 18	732	3991	
	30	763	775	760	748	737	770	815	831	800	796	790	771	755	720	681	648	597	600	620	641	665	718	740	757	729	- 14	715	4132	
Means.....	794	803	804	805	804	805	805	797	792	786	777	770	765	761	742	712	679	659	649	660	690	722	750	773	754	754				
Temp. Corrections	-58	-52	-47	-45	-43	-41	-40	-38	-37	-34	-32	-31	-31	-29	-26	-25	-28	-33	-40	-45	-50	-54	-57	-57	.....	-41				
Corrected Means..	736	751	757	760	761	764	765	759	755	752	745	739	734	732	716	687	651	626	609	615	640	668	693	716	716	716			713	
Mean Hourly Variations from Monthly Mean.	-00	-0190	-0314	-0364	-0389	-0397	-0421	-0430	-0381	-0348	-0323	-0265	-0215	-0173	-0157	-0025	0215	0513	0719	0859	0810	0603	0372							

Correction for $\dot{i}$ Faht. = $\frac{\text{sec.}}{3.3963}$ Zero. for Magnetometer at Ther. $88.8 = 1497$.Ditto to Ther. = -0.5 $k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15' = 0.00008264$ Ditto reduced to standard temperature $80^\circ = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$1 + \frac{\Delta X}{X}$		
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41						
DECEMBER 1854. Horizontal Force Magnetometer.	1	740	760	789	850	910	887	856	810	840	832	827	819	810	780	752	728	773	729	750	792	805	832	810	818	804	- 5	799	1.003438	
	2	868	910	879	851	870	770	821	833	843	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	762	- 5	757	3785	
	3	—	—	—	—	—	—	—	—	—	800	760	756	752	747	705	656	618	595	618	640	702	750	762	775	720	- 2	718	4108	
	4	750	755	770	770	792	780	771	760	737	732	730	725	720	716	690	670	651	650	620	635	660	715	718	752	724	- 1	723	4066	
	5	774	773	775	750	742	750	743	734	748	727	710	723	736	745	730	706	690	654	635	645	670	707	740	767	707	3	710	4173	
	6	765	753	750	747	746	738	738	731	720	724	732	736	739	734	720	708	673	638	600	585	613	645	698	732	707	8	690	4339	
	7	755	745	739	732	729	730	729	727	718	712	710	711	712	704	682	650	620	596	577	573	580	605	640	683	682	4	718	4108	
	8	742	757	742	734	737	716	754	758	730	721	715	712	708	700	700	682	678	659	660	668	690	715	740	723	714				
	9	752	765	743	750	740	750	747	743	720	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	10	—	—	—	—	—	—	—	—	—	732	748	739	730	720	699	671	645	618	608	588	590	615	666	705	699	- 8	691	4331	
	11	725	728	719	714	713	716	700	681	698	698	702	701	700	690	670	658	638	611	586	570	578	607	643	667	671	0	671	4496	
	12	682	689	682	679	690	674	669	640	650	657	668	674	680	680	671	660	650	612	580	577	613	647	660	675	657	7	664	4554	
	13	667	660	643	648	698	660	674	700	720	727	737	708	679	656	650	601	620	577	583	638	625	622	650	672	659	23	682	4404	
	14	680	705	717	729	741	730	716	684	660	658	660	657	653	646	628	602	600	590	575	578	590	613	630	627	653	50	703	4231	
	15	640	642	659	650	650	650	649	645	640	636	636	638	640	600	593	570	540	526	507	520	500	483	545	553	596	70	666	4537	
	16	585	588	587	631	610	610	617	600	583	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	17	—	—	—	—	—	—	—	—	—	600	620	621	622	629	642	610	610	608	590	575	583	637	692	698	615	67	682	4404	
	18	670	667	664	677	676	679	681	677	670	660	653	656	659	652	619	592	562	552	550	562	604	650	690	682	642	64	706	4206	
	19	678	676	684	690	687	679	677	674	650	655	663	657	650	643	638	600	573	540	512	540	572	600	625	637	633	69	702	4239	
	20	653	660	657	682	707	712	722	701	690	675	664	662	660	653	625	592	562	538	524	549	576	628	612	630	639	68	707	4198	
	21	657	658	678	672	678	688	672	690	700	688	680	669	657	640	628	592	561	531	520	530	562	600	610	635	633	58	691	4331	
	22	645	653	636	636	640	632	625	637	625	626	630	636	641	650	652	633	598	545	515	510	550	609	643	675	618	57	675	4462	
	23	670	672	654	648	648	649	640	635	620	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	24	—	—	—	—	—	—	—	—	—	618	620	619	618	622	610	594	571	552	533	510	520	550	577	613	607	46	653	4644	
	25	640	652	655	652	640	643	648	647	648	642	640	638	635	638	642	637	610	577	549	520	505	520	565	597	614	58	672	4487	
	26	638	645	637	640	645	641	638	637	636	632	632	627	622	620	603	595	607	582	560	528	525	560	595	600	610	53	663	4562	
	27	625	630	612	598	592	619	627	630	624	620	620	640	659	643	650	643	630	590	544	517	492	535	590	650	608	56	664	4554	
	28	703	720	750	741	727	730	721	718	695	686	680	674	667	650	652	648	641	600	601	572	590	630	655	670	672	58	730	4008	
	29	697	700	702	730	726	758	760	765	747	732	720	710	700	692	682	678	638	645	618	610	600	647	662	682	692	58	750	3843	
	30	690	685	698	720	698	700	722	725	729	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	31	—	—	—	—	—	—	—	—	—	695	665	654	642	630	620	600	590	590	561	600	613	630	646	667	657	69	726	4041	
Means.....	696	702	701	705	709	704	705	699	694	688	685	683	680	672	660	638	621	596	580	582	596	629	656	676	665					
Temp. Corrections	18	22	27	28	30	33	36	38	40	41	41	43	44	46	51	52	52	48	41	34	27	22	20	19	.....	36				
Corrected Means..	714	724	728	733	739	737	741	737	734	729	726	726	724	718	711	690	673	644	621	616	623	651	676	695			701			

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{q}{k} = 1.184. \quad k. = a. \cotan. \theta. \left(\frac{\dot{T}}{T} \right)^2 = 0.0000291. \times \cotan. 7^\circ 38' 45'' \times \left(\frac{6.917}{5.841} \right)^2 = 0.00030399. \quad \text{Adopted Temperature } 80^\circ.$$

VERTICAL FORCE MAGNETOMETER.

Göttingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean8.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$	
Madras Mean Time.		P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					h.m.
		4'41	5'41	6'41	7'41	8'41	9'41	10'41	11'41	12'41	13'41	14'41	15'41	16'41	17'41	18'41	19'41	20'41	21'41	22'41	23'41	0'41	1'41	2'41	3'41					
					-4'3		-7'7		-9'9		-2'4		12'0																	
1853 Decr. 31		4799	4772	4777	4773	4777	4771	4780	4747	4733																				
1											4749	4769	4772	4752	4752	4759	4784	4902	4902	4975	4894	4794	4715	4680	4787	4788	18	4806		
2		4885	4964	4885	4828	4778	4795	4827	4831	4854	4798	4747	4749	4727	4799	4799	4838	4920	4942	4917	4858	4795	4740	4701	4755	4822	22	4844		
3		4794	4784	4766	4746	4734	4693	4667	4648	4649	4647	4649	4648	4623	4748	4731	4761	4853	4973	5045	4970	4846	4710	4685	4772	4756	28	4784		
4		4806	4806	4789	4787	4793	4785	4793	4758	4743	4778	4817	4800	4759	4759	4763	4806	4899	4987	5075	5075	4980	4910	4859	4831	4840	33	4873		
5		4831	4818	4810	4806	4810	4802	4810	4791	4792	4790	4792	4796	4776	4760	4760	4816	4935	5038	4999	4934	4862	4862	4790	4823	4833	32	4865		
6		4823	4816	4818	4818	4826	4818	4826	4806	4805	4789	4777	4789	4777	4752	4752	4806	4917	5045	5085	5085	5064	4970	4848	4803	4859	29	4888		
7		4821	4821	4817	4813	4817	4809	4817	4804	4811																				
8											4792	4777	4789	4777	4793	4755	4755	4807	4905	4978	4978	4995	4995	4906	4852	4841	16	4857		
9		4852	4814	4792	4788	4792	4763	4750	4748	4765	4763	4765	4759	4729	4729	4745	4815	4957	5124	4952	4905	4822	4696	4563	4530	4788	4	4792		
10		4591	4598	4572	4568	4572	4567	4577	4560	4562	4555	4552	4564	4552	4545	4515	4432	4521	4705	4860	4842	4804	4770	4726	4661	4615	0	4615		
11		4661	4632	4647	4643	4647	4618	4604	4598	4611	4609	4611	4596	4557	4557	4601	4640	4684	4781	4813	4952	4886	4782	4753	4753	4677	5	4682		
12		4719	4719	4670	4656	4650	4642	4650	4650	4669	4667	4669	4657	4621	4595	4617	4658	4707	4740	4787	4802	4815	4815	4737	4687	4692	11	4703		
13		4687	4687	4687	4677	4676	4668	4676	4650	4644	4642	4644	4646	4624	4632	4639	4655	4718	4775	4845	4896	4872	4820	4730	4703	4704	13	4717		
14		4703	4746	4691	4687	4691	4700	4724	4680	4656																				
15											4645	4639	4641	4620	4628	4649	4704	4806	4869	4909	4875	4785	4682	4682	4698	4713	14	4727		
16		4711	4694	4692	4667	4652	4642	4650	4649	4667	4665	4667	4691	4692	4685	4649	4618	4723	4767	4826	4845	4804	4696	4585	4554	4687	9	4696		
17		4680	4757	4757	4691	4634	4626	4634	4645	4675	4663	4655	4650	4622	4590	4633	4666	4773	4805	4854	4883	4840	4707	4606	4658	4696	7	4703		
18		4657	4678	4678	4657	4644	4636	4644	4615	4606	4628	4655	4650	4621	4606	4632	4699	4730	4819	4907	4935	4899	4840	4704	4649	4700	7	4707		
19		4691	4713	4697	4676	4664	4683	4718	4674	4649	4639	4633	4636	4615	4647	4568	4659	4625	4740	4768	4755	4730	4727	4790	4765	4686	9	4695		
20		4739	4691	4674	4670	4674	4675	4691	4665	4659	4657	4659	4641	4599	4652	4643	4638	4638	4679	4750	4760	4760	4746	4746	4710	4684	11	4695		
21		4725	4703	4695	4691	4695	4691	4703	4674	4664																				
22											4665	4670	4682	4670	4711	4659	4664	4699	4742	4805	4813	4813	4825	4775	4740	4716	9	4725		
23		4740	4729	4729	4718	4715	4704	4708	4693	4698	4703	4712	4713	4690	4687	4668	4655	4604	4694	4674	4688	4671	4671	4635	4659	4690	7	4697		
24		4684	4704	4700	4696	4700	4684	4684	4668	4671	4669	4671	4692	4690	4690	4668	4668	4697	4664	4754	4793	4725	4759	4759	4748	4702	12	4714		
25		4725	4725	4719	4700	4690	4682	4690	4682	4693	4694	4700	4712	4700	4614	4669	4669	4636	4685	4685	4702	4723	4716	4704	4736	4694	17	4711		
26		4736	4746	4734	4730	4734	4708	4697	4670	4662	4666	4675	4687	4675	4693	4666	4676	4686	4720	4673	4674	4659	4673	4673	4707	4693	19	4712		
27		4721	4709	4713	4709	4713	4694	4690	4681	4691	4673	4660	4672	4660	4684	4672	4672	3984	3950	4030	4011	4001	3976	3947	3939					
28		3955	3932	3932	3928	3932	3899	3881	3877	3893																				
29											3897	3905	3917	3905	3872	3886	3889	3912	3958		5016	4930	4954	4568	4595					
30		4534	4520	4999	4995	4999	4978	4973	4994	5034	5003	4977	4984	4967	4967	4941	4965	4900	4950	5005	4999	5010	4966	4956	4967	4941	23	4964		
31		5006	4985	4999	4978	4966	4965	4979	4965	4971	4973	4979	4980	4958	4936	4900	4974	5047	5161	5226	5280	5280	5213	5085	5047	5036	24	5060		
Means		4744	4745	4752	4738	4733	4724	4731	4715	4718	4714	4714	4717	4717	4694	4701	4695	4721	4775	4848	4887	4888	4849	4800	4747	4744	4754			
Temp. Corrections		2	7	13	14	15	17	18	19	20	22	22	24	25	28	31	29	23	16	10	6	2	1	0	0	.....	15			
Corrected Means..		4746	4752	4765	4752	4748	4741	4749	4734	4738	4736	4736	4741	4719	4729	4726	4750	4798	4864	4897	4894	4851	4801	4747	4744	.....	.....	4769		
Mean Hourly Variations from Monthly Mean.		23	17	4	17	21	28	20	35	31	33	33	28	50	40	43	19	-29	-95	-128	-125	-82	-32	22	25	.....	$\frac{\Delta Y}{Y}$	.....	003891	
		0699	0517	0122	0517	0638	0851	0608	1064	0942	1003	1003	0851	1520	1216	1307	0578	-0882	-2888	-3891	-3800	-2493	-0973	0669	0760	.....				

1853 Decr. 31		800	795	790	788	787	785	783	781	780																			
1											777	775	774	774	773	770	772	780	786	790	793	795	795	796	795	7848			
2		793	790	785	783	782	780	778	777	776	776	776	775	775	773	766	765	776	784	786	788	790	790	790	790	7810			
3		787	785	783	781	779	778	777	774	771	770	770	768	766	763	759	762	767	773	780	783	785	787	787	788	7760			
4		786	785	776	774	772	771	770	769	768	767	766	766	766	760	757	756	760	767	774	779	784	786	783	785	7720			
5		785	782	777	775	773	771	770	769	768	766	765	763	762	759	757	760	767	771	776	782	786	788	790	790	7730			
6		787	782	776	775	775	773	772	771	771	770	770	768	767	765	763	764	767	770	774	784	788	790	794	794	7754			
7		790	786	781	779	777	777	777	775	774																			
8											780	787	785	783	780	778	780	783	795	800	798	803	804	803	800	7865			
9		798	794	787	790	793	792	792	791	791	790	790	790	790	788	788	791	795	800	807	812	815	813	810	808	7965			
10		806	804	802	801	800	798	797	797	797	796	795	794	793	791	790	793	797	803	806	807	810	810	810	809	8003			
11		805	800	798	797	796	795	794	794	794	792	790	788	787	784	782	783	785	800	805	808	808	805	804	805	7958			
12		800	798	793	791	790	788	787	786	785	785	785	784	783	781	780	783	787	791	794	797	800	802	805	804	7908			
13		800	7																										

N. B.—Decreasing numbers denote an increase in the Vertical Force. In the upper table the numbers are tenths of scale divisions; in the lower table, tenths of Fahrenheit degrees; and in the Means, hundredths of degrees.

* The numbers in these Columns are not observed but interpolated, for the sake of obtaining the daily Means. The small figures heading them are the Corrections of interpolations.

January 27th 16h. Gottingen Mean Time. The needle vibrated vertically.

29th 18h.	do	do	do.	The axis of the needle cleaned.
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The observations on the 27th, 28th and 29th January rejected in taking the daily and hourly Means.

Corr. for 1° Faht. = $\frac{q}{k} = \frac{\text{sec.}}{1.176}$ $k = a. \cotan. \theta. \left(\frac{T}{T'}\right)^2 = 0.0000291 \times \cotan. 7^\circ 39' 21'' \times \left(\frac{6.917}{5.817}\right)^2 = 0.00030611$ Adopted Temperature 80°.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.			
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41				
FEBRUARY 1854. Vertical Force Magnetometer.				4.5		-1.5		5.1		14.9		7.7																
	1	4999	4975	4977	4981	4977	4970	4966	4971	4966	4968	4941	4949	4941	4936	4935	4940	4982	5052	5100	5135	5103	5130	5061	5011	4999	18	5017
	2	4969	4969	4958	4944	4921	4919	4919	4933	4936	4958	4950	4958	4950	4896	4883	4898	4914	4952	5011	5036	5116	5064	5013	4975	4960	3	4963
	3	4946	4913	4910	4906	4894	4893	4895	4898	4891	4886	4852	4879	4890	4866	4866	4806	4837	4891	4960	4916	4965	5058	5058	5019	4912	-5	4907
	4	4970	4929	4973	4926	4871	4880	4891	4896	4891	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	4885	4850	4856	4847	4792	4838	4850	4881	4915	4932	4866	4895	4920	4920	4911	4891	-10	4881
	6	4887	4839	4833	4822	4802	4816	4832	4837	4832	4856	4851	4851	4836	4772	4813	4843	4919	5007	5056	5054	4957	5014	4992	4945	4886	-7	4879
	7	4921	4852	4852	4849	4838	4841	4847	4852	4846	4843	4811	4819	4811	4829	4810	4832	4870	4904	4934	4945	4927	4945	4894	4894	4865	-12	4853
	8	4938	4938	4850	4854	4850	4838	4828	4833	4828	4843	4828	4816	4789	4796	4820	4820	4846	4860	4942	4979	4979	4945	4998	4920	4872	-12	4860
	9	4896	4858	4840	4828	4808	4801	4797	4800	4792	4807	4792	4800	4793	4807	4759	4748	4777	4755	4784	4810	4836	4880	4958	4921	4819	-14	4805
	10	4838	4793	4771	4800	4821	4807	4796	4795	4783	4805	4797	4801	4790	4790	4754	4779	4828	4860	4885	4875	4898	4970	4970	4879	4829	-12	4817
	11	4845	4845	4783	4787	4783	4780	4779	4784	4779	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	12	—	—	—	—	—	—	—	—	—	4769	4729	4761	4777	4742	4742	4766	4791	4825	4853	4847	4884	4909	4863	4815	4802	-14	4788
	13	4793	4793	4776	4793	4801	4788	4778	4780	4771	4780	4760	4768	4760	4777	4743	4730	4754	4754	4789	4798	4841	4879	4905	4810	4788	-23	4765
	14	4770	4770	4792	4796	4792	4778	4767	4732	4686	4744	4772	4789	4790	4698	4731	4755	4728	4746	4690	4707	4730	4787	4841	4781	4757	-28	4729
	15	4781	4810	4746	4764	4774	4770	4769	4770	4761	4767	4743	4750	4741	4723	4693	4718	4755	4776	4725	4748	4800	4772	4813	4843	4763	-27	4736
	16	4854	4779	4745	4756	4759	4763	4769	4770	4761	4751	4711	4732	4737	4749	4728	4657	4706	4744	4766	4729	4765	4765	4818	4800	4755	-30	4725
	17	4752	4752	4741	4745	4741	4737	4736	4756	4766	4758	4720	4719	4702	4717	4707	4715	4737	4713	4724	4756	4808	4859	4829	4829	4751	-24	4727
	18	4768	4923	4855	4859	4855	4837	4822	4827	4822	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	19	—	—	—	—	—	—	—	—	—	4814	4776	4792	4792	4792	4786	4819	4811	4852	4815	4849	4830	4854	4854	4813	4826	-17	4809
	20	4790	4790	4780	4786	4784	4800	4818	4807	4785	4782	4749	4757	4749	4761	4763	4762	4762	4751	4725	4758	4733	4763	4763	4784	4771	-14	4757
	21	4784	4762	4762	4766	4762	4768	4777	4777	4766	4765	4734	4773	4796	4706	4758	4780	4742	4776	4724	4775	4746	4714	4746	4746	4759	-14	4745
	22	4760	4772	4770	4768	4757	4755	4756	4768	4769	4771	4744	4736	4713	4749	4755	4747	4793	4793	4820	4756	4709	4749	4760	4760	4760	-10	4750
	23	4776	4750	4750	4749	4740	4732	4727	4733	4728	4765	4773	4762	4735	4747	4722	4721	4777	4806	4775	4797	4815	4815	4771	4829	4762	-12	4750
	24	4802	4802	4779	4773	4758	4800	4845	4841	4826	4776	4696	4750	4788	4716	4765	4759	4773	4782	4786	4757	4780	4776	4751	4798	4778	-13	4765
	25	4788	4738	4708	4733	4749	4734	4722	4722	4711	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	26	—	—	—	—	—	—	—	—	—	4746	4751	4732	4698	4754	4659	4669	4686	4728	4754	4712	4712	4684	4701	4679	4720	-16	4704
	27	4725	4725	4700	4715	4722	4710	4700	4705	4700	4716	4702	4710	4702	4644	4707	4690	4735	4758	4820	4865	4857	4827	4827	4811	4741	-18	4723
	28	4775	4743	4724	4728	4724	4723	4724	4713	4691	4704	4687	4695	4687	4644	4706	4674	4722	4789	4836	4836	4808	4888	4876	4847	4748	-19	4729
Means.....	4839	4826	4807	4810	4803	4802	4803	4804	4795	4802	4780	4790	4784	4767	4768	4770	4797	4825	4842	4846	4854	4874	4874	4851	4813			
Temp. Corrections..	-26	-22	-17	-15	-14	-12	-11	-10	-8	-7	-6	-4	-3	-1	2	-2	-7	-13	-18	-22	-25	-28	-29	-30	.....			
Corrected Means..	4813	4804	4790	4795	4789	4790	4792	4794	4787	4795	4774	4786	4781	4766	4770	4768	4790	4812	4824	4824	4829	4846	4845	4821				

$$\text{Corr. for } i \text{ Faht.} = \frac{q}{k} = \frac{\text{sec.}}{1.229}$$

$$k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cotan. 7^\circ 40' 5'' \times \left(\frac{6.917}{5.942} \right)^2 = 0.00029289$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	$\frac{\Delta Y}{Y}$	
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
MARCH 1854. Vertical Force Magnetometer.				6.4		0.3		1.7		13.2		24.2																	
	1	4813	4774	4774	4780	4774	4762	4749	4735	4718	4731	4718	4776	4785	4731	4709	4690	4711	4738	4786	4805	4814	4814	4774	4777	4760	-22	4738	
	2	4777	4754	4756	4762	4756	4738	4719	4724	4726	4739	4726	4743	4712	4706	4722	4704	4742	4771	4757	4788	4833	4843	4817	4818	4756	-28	4728	
	3	4795	4776	4776	4782	4776	4757	4737	4739	4737	4734	4704	4728	4704	4735	4698	4705	4711	4743	4781	4809	4851	4876	4876	4817	4764	-28	4736	
	4	4805	4775	4775	4763	4738	4732	4726	4728	4726	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5	—	—	—	—	—	—	—	—	—	—	4730	4708	4749	4741	4695	4687	4689	4712	4741	4824	4845	4903	4846	4846	4762	-37	4725	
	6	4842	4773	4759	4765	4759	4740	4721	4723	4721	4732	4716	4747	4730	4730	4690	4669	4643	4703	4753	4779	4743	4723	4752	4800	4738	-42	4696	
	7	4759	4729	4729	4735	4729	4718	4706	4700	4691	4704	4691	4722	4704	4701	4725	4724	4724	4757	4864	4879	4816	4798	4816	4774	4746	-49	4697	
	8	4774	4741	4740	4746	4740	4728	4715	4714	4710	4714	4691	4725	4711	4702	4698	4693	4739	4780	4811	4811	4884	4850	4873	4789	4753	-59	4694	
	9	4745	4745	4745	4722	4687	4676	4665	4682	4695	4708	4695	4709	4674	4696	4698	4718	4789	4852	4889	4953	4936	4923	4861	4799	4761	-63	4698	
	10	4799	4747	4731	4729	4715	4715	4715	4715	4712	4725	4712	4733	4705	4696	4699	4709	4758	4850	4995	5057	5012	4972	4908	4857	4790	-58	4732	
	11	4827	4827	4755	4760	4753	4732	4711	4713	4711	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12	—	—	—	—	—	—	—	—	—	—	4714	4690	4714	4690	4706	4686	4694	4711	4841	4881	4918	4948	4948	4925	4894	4781	-51	4730
	13	4854	4856	4856	4835	4802	4792	4782	4784	4782	4807	4806	4830	4806	4772	4747	4769	4801	4844	4917	4944	4881	4859	4859	4757	4823	-46	4777	
	14	4775	4811	4811	4817	4811	4772	4733	4754	4771	4784	4771	4789	4759	4773	4769	4757	4821	4904	4977	5022	4977	4941	4889	4833	4826	-46	4780	
	15	4800	4800	4800	4800	4788	4788	4788	4778	4765	4778	4765	4804	4795	4706	4830	4796	4872	4928	5050	5080	5041	4984	4904	4809	4844	-39	4805	
	16	4809	4847	4825	4809	4781	4769	4757	4756	4751	4787	4796	4824	4803	4803	4773	4771	4854	4889	4936	4936	4917	4835	4805	4835	4820	-36	4784	
	17	4835	4793	4793	4799	4793	4777	4760	4762	4760	4760	4734	4774	4765	4788	4760	4760	4790	4837	4888	4895	4895	4899	4866	4869	4806	-35	4771	
	18	4839	4839	4823	4811	4787	4765	4742	4761	4777	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	19	—	—	—	—	—	—	—	—	—	—	4783	4762	4792	4774	4774	4749	4776	4802	4846	4881	4840	4811	4811	4816	4810	4799	-32	4767
	20	4886	4805	4805	4811	4805	4791	4776	4779	4779	4792	4779	4799	4771	4779	4764	4797	4829	4852	4872	4872	4905	4869	4857	4843	4817	-26	4791	
	21	4821	4795	4790	4796	4790	4790	4790	4769	4744	4757	4744	4773	4754	4732	4755	4755	4805	4862	4899	4930	4909	4909	4846	4826	4806	-42	4764	
	22	4826	4820	4805	4811	4805	4796	4786	4777	4765	4789	4787	4765	4695	4668	4693	4722	4751	4805	4816	4793	4766	4739	4739	4740	4769	-49	4720	
	23	4721	4721	4715	4723	4718	4702	4685	4679	4669	4677	4658	4689	4672	4660	4674	4681	4713	4713	4736	4767	4800	4748	4732	4714	4707	-57	4650	
	24	4714	4704	4704	4710	4704	4681	4657	4674	4688	4682	4650	4674	4650	4681	4662	4696	4737	4795	4851	4819	4785	4732	4650	4650	4706	-58	4648	
	25	4699	4732	4704	4710	4704	4695	4685	4664	4640	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	26	—	—	—	—	—	—	—	—	—	—	4675	4683	4698	4665	4694	4715	4773	4840	4625	5425	5436	5386	5328	5275	5220	4861	-58	4803
	27	5157	5157	5157	5155	5140	5125	5110	5125	5136	5149	5136	5184	5184	5124	5176	5195	5236	5235	5306	5282	5346	5325	5292	5258	5195	-53	5142	
	28	5152	5203	5106	5112	5105	5081	5057	5067	5073	5030	4961	5030	5050	5074	5081	5126	5165	5178	5178	5215	5135	5114	5082	5110	5104	-59	5045	
	29	5136	5136	5124	5130	5124	5115	5105	5084	5060	5073	5060	5084	5060	5079	5076	5076	5116	5193	5271	5271	5210	5157	5113	5085	5122	-63	5059	
	30	5124	5142	5102	5108	5102	5082	5062	5064	5062	5099	5110	5121	5084	5033	5026	5006	5070	5249	5253	5221	5221	5293	5211	5173	5126	-63	5063	
	31	5124	5124	5124	5116	5095	5081	5066	5063	5057	5070	5057	5081	5057	5055	5049	5065	5105	5191	5256	5282	5194	5141	5116	5092	511			

Corr. for $\hat{i}$ Faht. = $\frac{q}{k} = \frac{\text{sed.}}{1.185}$ $k = a. \cotan. \theta. \left(\frac{r}{T} \right)^2 = 0.000291 \times \cotan. \frac{0}{7} \frac{37}{35} \times \left(\frac{6.918}{5.851} \right)^2 = 0.00030382$ Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.	P.M. h.m.	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41			
APRIL 1854. Vertical Force Magnetometer.				-6.1		-5.5		-11.8		7.7		3.9																
	1	5118	5118	5118	5082	5059	5062	5076	5067	5082																		
	2										5066	5035	5046	5049	5049	5039	5019	5060	5119	5195	5273	5324	5309	5164	5142	5111	-69	5042
	3	5121	5121	5121	5087	5065	5040	5025	5022	5042	5050	5042	5057	5064	5047	5052	5095	5142	5150	5182	5186	5161	5161	5111	5089	5093	-72	5021
	4	5111	5111	5061	5055	5061	5070	5089	5077	5089	5094	5083	5063	5035	5035	5084	5105	5169	5250	5311	5311	5233	5170	5126	5090	5120	-72	5048
	5	5108	5108	5108	5077	5058	5033	5018	5031	5067	5075	5067	5047	5020	5020	5051	5068	5135	5176	5212	5212	5219	5219	5149	5107	5099	-75	5024
	6	5089	5089	5089	5083	5089	5077	5076	5038	5024	5045	5050	5038	5018	5035	5084	5084	5155	5210	5275	5291	5291	5144	5112	5095	5108	-82	5026
	7	5081	5062	5033	5027	5033	5008	4994	5005	5039	5024	4994	5002	5003	5003	5027	5074	5134	5249	5298	5304	5267	5193	5161	5111	5089	-88	5001
	8	5049	5049	5019	5013	5019	5007	5005	4968	4955																		
	9										4988	5005	4992	4972	4988	5012	5003	5072	5158	5199	5179	5157	5157	5097	5064	5047	-94	4953
	10	5089	5089	5038	5032	5038	5021	5014	4989	4988	4996	4988	4955	4914	4914	4889	4989	5149	5277	5082	5000	4903	5049	5154	5298	5036	-94	4942
	11	5148	4934	4911	4905	4911	4906	4911	4901	4914	4922	4914	4918	4914	4915	4942	4866	4891	4952	5020	5041	5041	5066	5066	5066	4957	-102	4855
	12	5009	5009	4998	4992	4998	4987	4986	4950	4938	4935	4916	4920	4916	4964	4932	5019	5035	5144	5228	5259	5214	5116	5009	4895	5015	-104	4911
	13	4880	4932	4923	4917	4923	4909	4905	4903	4924	4906	4873	4885	4890	4845	4905	5000	5080	5170	5301	5333	5262	5128	5032	4947	4991	-102	4889
	14	4947	4931	4931	4934	4950	4945	4950	4945	4964	4972	4964	4934	4896	4899	4967	5029	5125	5211	5257	5238	5191	5128	5047	5047	5017	-101	4916
	15	4997	4997	4977	4970	4975	4928	4891	4879	4891																		
	16										4937	4967	4940	4905	4842	4902	4949	5034	5137	5270	5298	5220	5140	5029	4979	5002	-104	4898
	17	4917	4962	4991	4964	4949	4933	4927	4920	4936	4944	4936	4928	4913	4873	4898	4923	4982	5045	5087	5159	5187	5140	5059	4991	4982	-102	4880
	18	4991	4967	4967	4926	4898	4917	4947	4947	4970	4955	4925	4929	4925	4871	4974	4893	4961	5014	5087	5155	5079	5011	4957	4957	4968	-106	4862
	19	4979	4939	4917	4914	4924	4912	4911	4927	4966	4987	4992	4967	4935	4926	4895	4990	5004	5045	5041	5040	5015	4981	4981	4956	4964	-104	4860
	20	4974	4956	4928	4917	4918	4911	4914	4871	4852	4891	4914	4918	4914	4920	4918	4995	5031	5031	5121	5170	5137	5096	5018	5008	4972	-101	4871
	21	4990	4990	4931	4916	4913	4916	4930	4927	4948	4986	5009	4947	4878	4905	4930	4973	5014	5025	5085	5106	5106	5134	5067	5036	4986	-107	4879
	22	5019	5060	5002	4985	4981	4976	4981	4981	5005																		
	23										4997	4974	4978	4974	4987	5014	5046	5096	5153	5192	5220	5150	5150	5056	5055	5043	-126	4917
	24	5086	5043	5030	5021	5024	5006	4999	4968	4960	4932	4888	4947	4999	4936	5043	5043	5087	5126	5146	5111	5018	4968	4968	4950	5012	-130	4882
	25	4985	4985	4985	4958	4943	4938	4943	4943	4966	4974	4966	4953	4933	4933	5006	5049	5125	5169	5169	5161	5140	5093	5061	5033	5017	-122	4895
	26	5030	5030	4985	4979	4986	4988	5000	4986	4995	5003	4995	4981	4960	4984	4977	4999	5041	5067	5090	5051	5064	5064	4956	4956	5007	-109	4898
	27	4975	5005	4952	4961	4983	4959	4946	4943	4964	4974	4968	4990	5004	4986	5009	5006	5055	5096	5118	5065	5080	5040	4985	4957	5001	-85	4916
	28	4996	4996	4979	4976	4985	4970	4965	4956	4971	4980	4974	4958	4935	4957	4971	4945	5011	5057	5129	5096	5065	4988	4968	4950	4991	-83	4908
	29	4950	4986	4960	4960	4973	4956	4950	4952	4978																		
	30										4969	4945	4952	4951	4908	4942	4972	5040	5076	5045	5087	5046	5040	4989	4971	4983	-85	4898
Means.....	5026	5019	4998	4986	4986	4975	4974	4964	4977	4984	4975	4970	4957	4950	4979	5005	5065	5124	5166	5174	5143	5107	5053	5030	5025			
Temp. Corrections	-114	-107	-100	-97	-94	-91	-89	-88	-86	-85	-83	-81	-80	-77	-78	-84	-92	-100	-106	-113	-117	-119	-120	-119	.....	-97		
Corrected Means..	4912	4912	4898	4889	4892	4884	4885	4876	4891	4899	4892	4889	4877	4873	4901	4921	4973	5024	5060	5061	5026	4988	4933	4911	.....	.....	4928	
Mean Hourly Variations from Monthly Mean.	16	16	30	39	36	44	43	52	37	29	36	39	51	55	27	7	-45	-96	-132	-133	-98	-60	-5	17	.....	$\frac{\Delta Y}{Y} =$	.....	.004041
	0486	0486	0911	1185	1094	1337	1306	1580	1124	0881	1094	1185	1549	1671	0820	0213	-1367	-2917	-4010	-4041	-2977	-1823	-01					

Corr. for i Faht. = $\frac{q}{k} = \frac{\text{scd.}}{1.397}$ $k = a. \cotan. \theta. \left(\frac{T}{T'}\right)^2 = 0.0000291 \times \cotan. 7^\circ 38' 35'' \times \left(\frac{6.918}{6.345}\right)^2 = 0.00025780$ Adopted Temperature 80°.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	$\frac{\Delta Y}{Y}$
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41				
MAY 1854. Vertical Force Magnetometer.				-13.1		-17.1		6.2		-0.9		10.6																
	1	4947	4947	4954	4935	4942	4918	4929	4899	4857	4880	4904	4904	4882	4930	4928	4952	5016	5072	5102	5075	5062	5030	4983	4944	4958	-94	4864
	2	4931	4931	4950	4929	4934	4907	4914	4917	4907	4901	4896	4901	4884	4872	4900	4926	5000	5070	5099	5049	5022	4992	4961	4958	4948	-88	4860
	3	4958	4959	4939	4919	4926	4911	4931	4941	4938	4923	4909	4914	4898	4903	4919	4928	4977	4989	4989	4969	4982	4954	4963	4943	4941	-96	4845
	4	4942	4942	4935	4914	4919	4890	4896	4899	4890	4896	4903	4902	4880	4858	4388	4565	4616	4555	4607	4651	4692	4631	4576	4576	4772	-105	4667
	5	4544	4515	4551	4489	4454	4437	4454	4458	4449	4439	4430	4429	4407	4394	4459	4485	4564	4596	4597	4486	4452	4443	4426	4426	4474	-109	4365
	6	4457	4451	4443	4415	4413	4386	4393	4396	4386																		
	7										4389	4393	4392	4370	4370	4376	4399	4482	4562	4620	4649	4575	4504	4440	4411	4445	-116	4329
	8	4448	4448	4436	4401	4393	4376	4393	4426	4447	4442	4439	4440	4419	4419	4468	4543	4612	4658	4724	4669	4590	4540	4495	4530	4490	-119	4371
	9	4499	4469	4469	4446	4450	4388	4360	4371	4370	4389	4410	4390	4349	4433	4481	4547	4628	4628	4577	4584	4553	4520	4520	4543	4474	-123	4351
	10	4478	4457	4410	4397	4410	4393	4410	4393	4364	4379	4396	4375	4332	4400	4450	4543	4572	4662	4599	4593	4522	4572	4587	4505	4467	-123	4344
	11	4505	4465	4431	4409	4414	4397	4414	4418	4410	4399	4389	4414	4418	4395	4376	4437	4528	4620	4620	4581	4577	4512	4533	4478	4464	-122	4342
	12	4445	4421	4435	4420	4431	4409	4421	4427	4421	4407	4394	4385	4354	4315	4378	4442	4556	4628	4725	4661	4661	4610	4553	4445	4473	-115	4358
	13	4392	4456	4456	4426	4422	4405	4422	4398	4362																		
	14										4372	4384	4419	4432	4432	4490	4509	4556	4609	4686	4720	4585	4515	4515	4536	4479	-121	4358
	15	4534	4458	4581	4529	4503	4486	4503	4488	4461	4503	4546	4517	4467	4467	4460	4540	4636	4704	4669	4704	4640	4600	4556	4503	4544	-124	4420
	16	4503	4463	4467	4454	4467	4545	4658	4565	4460	4457	4455	4460	4444	4401	4508	4605	4575	4607	4667	4690	4648	4667	4635	4537	4539	-123	4416
	17	4491	4433	4466	4422	4405	4395	4419	4425	4418	4417	4418	4447	4455	4406	4478	4544	4644	4644	4528	4567	4624	4579	4541	4483	4485	-121	4364
	18	4525	4436	4436	4411	4413	4405	4432	4438	4432	4432	4434	4448	4441	4456	4456	4466	4529	4589	4589	4562	4500	4516	4572	4572	4479	-124	4355
	19	4507	4463	4477	4455	4459	4440	4456	4463	4457	4441	4427	4446	4444	4441	4375	4447	4518	4518	4603	4593	4593	4624	4586	4503	4489	-126	4363
	20	4462	4440	4422	4421	4446	4411	4410	4416	4410																		
	21										4396	4384	4427	4449	4400	4477	4546	4641	4696	4696	4665	4627	4587	4543	4517	4495	-131	4364
	22	4532	4532	4532	4498	4490	4473	4490	4499	4496	4478	4461	4439	4396	4441	4453	4498	4556	4589	4625	4625	4563	4532	4570	4515	4512	-137	4375
	23	4478	4450	4450	4437	4450	4431	4446	4452	4446	4425	4406	4405	4382	4421	4454	4498	4566	4615	4635	4537	4484	4484	4438	4395	4466	-147	4319
	24	4395	4435	4448	4435	4448	4421	4428	4438	4436	4412	4390	4419	4427	4428	4424	4432	4493	4540	4560	4617	4599	4520	4450	4551	4466	-153	4311
	25	4451	4532	4557	4466	4402	4378	4388	4430	4460	4459	4460	4441	4401	4401	4462	4499	4500	4508	4576	4750	4717	4622	4569	4513	4498	-161	4337
	26	4475	4475	4475	4446	4443	4426	4443	4455	4455	4452	4450	4435	4398	4419	4384	4363	4450	4537	4505	4534	4548	4535	4593	4540	4468	-174	4294
	27	4430	4474	4450	4436	4448	4422	4430	4444	4445																		
	28										4432	4420	4426	4410	4417	4350	4350	4421	4517	4600	4682	4682	4589	4589	4523	4474	-187	4287
	29	4465	4465	4498	4495	4519	4475	4465	4478	4479	4478	4479	4461	4421	4382	4399	4373	4428	4473	4533	4533	4533	4557	4475	4417	4470	-184	4286
	30	4447	4483	4463	4433	4429	4412	4429	4422	4402	4411	4421	4422	4402	4426	4416	4440	4440	4510	4559	4544	4575	4575	4507	4428	4458	-182	4276
	31	4428	4451	4448	4435	4448	4433	4453	4453	4440	4432	4426	4437	4426	4471	4444	4522	4537	4618	4670	4670	4710	4627	4526	4441	4498	-190	4308
Means.....	4543	4535	4540	4514	4514	4495	4511	4511	4500	4498	4497	4500	4481	4485	4487	4533	459											

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{q}{k} = \frac{\text{sec.}}{1.397}$$

$$k = a. \cotan. \theta. \left(\frac{r}{T} \right)^2 = 0.0000291 \times \cotan. 7^\circ 39' 35'' \times \left(\frac{6.918}{6.338} \right)^2 = 0.00025779$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.		
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
JUNE 1854. Vertical Force Magnetometer.				-2.3		4.1		-11.7		13.7		8.4																	
	1	4446	4477	4480	4448	4420	4444	4459	4447	4459	4442	4397	4451	4488	4466	4457	4444	4524	4597	4592	4663	4675	4553	4553	4480	4494	-186	4308	
	2	4480	4507	4480	4470	4465	4469	4464	4437	4433	4456	4451	4467	4467	4467	4460	4514	4514	4593	4628	4628	4614	4614	4572	4572	4509	-188	4321	
	3	4522	4522	4464	4439	4419	4423	4419	4392	4389																			
	4										4438	4460	4457	4438	4386	4478	4518	4564	4571	4617	4563	4563	4563	4563	4514	4487	-190	4297	
	5	4473	4473	4473	4471	4473	4466	4451	4465	4503	4494	4458	4473	4472	4472	4507	4517	4592	4676	4632	4597	4533	4533	4496	4446	4506	-183	4323	
	6	4495	4495	4482	4484	4491	4482	4465	4453	4465	4464	4435	4453	4454	4501	4509	4509	4579	4660	4712	4686	4587	4587	4552	4523	4522	-173	4349	
	7	4523	4565	4565	4513	4465	4490	4506	4480	4478	4474	4442	4460	4462	4462	4498	4565	4629	4645	4645	4662	4621	4559	4503	4463	4528	-174	4354	
	8	4425	4474	4474	4472	4475	4467	4450	4438	4450	4469	4461	4451	4425	4425	4468	4534	4534	4621	4621	4604	4578	4539	4551	4551	4498	-161	4337	
	9	4512	4490	4486	4479	4476	4480	4476	4464	4476	4481	4459	4444	4413	4461	4486	4538	4602	4600	4600	4584	4553	4499	4495	4415	4499	-139	4360	
	10	4478	4478	4471	4469	4471	4475	4471	4459	4471																			
	11										4489	4479	4499	4502	4471	4528	4528	4590	4507	4448	4470	4499	4458	4507	4549	4490	-142	4348	
	12	4610	4610	4580	4540	4504	4519	4525	4483	4464	4491	4490	4497	4487	4474	4506	4428	4543	4543	4668	4727	4700	4670	4561	4561	4549	-141	4408	
	13	4586	4479	4489	4478	4472	4501	4521	4530	4562	4555	4521	4529	4521	4482	4438	4407	4497	4546	4589	4633	4698	4749	4722	4670	4549	-165	4384	
	14	4585	4523	4523	4521	4523	4500	4468	4471	4498	4512	4498	4497	4479	4494	4462	4349	4261	4385	4434	4902	4612	4693	4632	4555	4516	-163	4353	
	15	4497	4497	4499	4478	4462	4477	4484	4486	4511	4524	4510	4496	4465	4424	4483	4485	4524	4624	4726	4700	4669	4627	4627	4554	4535	-164	4371	
	16	4515	4539	4519	4517	4519	4499	4470	4441	4436	4450	4436	4457	4462	4462	4495	4453	4480	4495	4513	4615	4615	4557	4602	4575	4505	-164	4341	
	17	4500	4493	4493	4474	4460	4477	4486	4474	4486																			
	18										4496	4478	4486	4478	4461	4460	4459	4492	4545	4596	4638	4611	4568	4518	4487	4505	-154	4351	
	19	4487	4458	4458	4467	4481	4485	4481	4450	4443	4457	4443	4452	4445	4452	4485	4542	4579	4630	4675	4710	4710	4654	4580	4580	4525	-148	4377	
	20	4548	4574	4492	4490	4492	4496	4492	4463	4458	4484	4483	4493	4486	4486	4473	4473	4504	4561	4590	4555	4632	4685	4685	4636	4530	-150	4380	
	21	4540	4497	4491	4489	4491	4495	4491	4469	4471	4498	4498	4500	4486	4463	4520	4547	4593	4638	4622	4678	4691	4630	4588	4511	4537	-159	4378	
	22	4530	4531	4530	4505	4484	4489	4485	4462	4463	4465	4439	4455	4454	4512	4482	4514	4514	4522	4542	4473	4398	4452	4425	4425	4481	-163	4318	
	23	4513	4593	4553	4578	4608	4587	4558	4546	4558	4572	4558	4565	4556	4591	4618	4618	4681	4716	4775	4840	4769	4666	4638	4596	4619	-157	4462	
	24	4568	4615	4592	4584	4581	4585	4581	4583	4609																			
	25										4605	4573	4581	4573	4548	4569	4536	4584	4614	4586	4560	4564	4564	4564	4559	4578	-131	4447	
	26	4582	4615	4615	4612	4614	4618	4614	4580	4570	4584	4570	4579	4571	4572	4572	4566	4648	4710	4735	4683	4633	4582	4582	4502	4605	-115	4490	
	27	4582	4644	4643	4681	4723	4662	4592	4554	4540	4554	4540	4566	4575	4574	4612	4590	4670	4670	4693	4678	4678	4627	4562	4554	4615	-119	4496	
	28	4585	4630	4612	4613	4619	4609	4591	4579	4591	4616	4614	4622	4614	4573	4553	4550	4584	4584	4720	4707	4675	4675	4642	4639	4617	-124	4493	
	29	4636	4602	4624	4618	4616	4620	4616	4572	4552	4566	4552	4566	4564	4567	4552	4531	4531	4607	4644	4644	4705	4750	4704	4656	4608	-128	4480	
	30	4612	4606	4595	4597	4603	5573	4534	4510	4510	4562	4586	4594	4586	4546	4546	4580	4637	4637	4657	4583	4583	4556	4519	4559	4578	-110	4468	
Means.....	4532	4538	4526	4519	4516	4515	4506	4488	4494	4508	4494	4503	4497	4492	4508	4511	4556	4596	4625	4646	4622	4600	4575	4544	4544	4538			
Temp. Corrections..	-174	-167	-161	-158	-156	-152	-149	-146	-144	-142	-140	-138	-137	-135	-137	-141	-146	-152	-157	-163	-168	-173	-176	-174	-174		-153		
Corrected Means..	4358	4371	4365</																										

Corr. for $\dot{1}$ Faht. = $\frac{q}{k} = \frac{\text{scd.}}{1.400}$ $k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.000291 \times \cotan. 7^\circ 38' 3'' \times \left(\frac{6.918}{6.356} \right)^2 = 0.00025720$ Adopted Temperature 80°

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.			
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.						
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41						
JULY 1854. Vertical Force Magnetometer.																														
	1	4559	4568	4541	4541	4535	4533	4535	4547	4576	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4605	-118	4487		
	2	—	—	—	—	—	—	—	—	—	4591	4591	4596	4566	4566	4569	4592	4634	4660	4699	4738	4745	4726	4685	4626	4545	-108	4437		
	3	4602	4602	4527	4539	4545	4552	4563	4549	4551	4545	4524	4552	4545	4521	4551	4595	4641	4558	4558	4499	4429	4489	4518	4518	4578	-106	4472		
	4	4481	4507	4531	4534	4531	4529	4531	4546	4578	4581	4570	4587	4570	4504	4569	4555	4600	4670	4670	4688	4650	4650	4605	4642	4594	-117	4477		
	5	4602	4550	4536	4545	4548	4529	4514	4531	4565	4572	4565	4590	4580	4520	4579	4603	4629	4681	4681	4698	4676	4676	4640	4635	4594	-117	4477		
	6	4610	4579	4550	4534	4513	4511	4513	4504	4512	4519	4512	4531	4516	4513	4532	4532	4576	4576	4676	4707	4588	4535	4552	4552	4552	-121	4431		
	7	4673	4568	4595	4576	4552	4550	4552	4550	4564	4571	4564	4567	4535	4531	4555	4591	4591	4607	4607	4724	4655	4711	4758	4720	4603	-120	4483		
	8	4598	4542	4515	4511	4502	4500	4502	4474	4463	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9	—	—	—	—	—	—	—	—	—	4496	4514	4531	4514	4528	4556	4610	4610	4565	4457	4465	4520	4585	4521	4468	4523	-102	4421		
	10	4496	4551	4586	4526	4460	4630	4804	4691	4594	4612	4616	4593	4536	4516	4575	4575	4661	4661	4704	4731	4731	4671	4592	4563	4611	-90	4521		
	11	4526	4505	4505	4502	4493	4475	4461	4483	4522	4529	4522	4536	4516	4489	4538	4585	4664	4746	4771	4747	4748	4715	4690	4620	4579	-93	4486		
	12	4581	4553	4573	4576	4573	4549	4529	4516	4519	4526	4519	4541	4528	4519	4565	4599	4636	4694	4717	4753	4753	4767	4666	4632	4599	-113	4486		
	13	4589	4553	4553	4525	4492	4495	4503	4502	4518	4525	4518	4507	4462	4499	4537	4536	4559	4559	4523	4446	4470	4535	4607	4577	4525	-104	4421		
	14	4518	4518	4518	4509	4494	4492	4494	4495	4512	4519	4512	4519	4492	4489	4544	4584	4609	4650	4625	4614	4614	4570	4591	4524	4542	-96	4446		
	15	4595	4542	4542	4545	4542	4521	4504	4496	4504	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	16	—	—	—	—	—	—	—	—	—	—	4517	4515	4532	4515	4524	4546	4576	4607	4624	4624	4581	4515	4524	4495	4495	4541	-74	4467	
	17	4471	4505	4535	4535	4530	4536	4547	4525	4519	4526	4519	4531	4508	4507	4537	4537	4570	4567	4605	4710	4710	4755	4768	4647	4571	-84	4487		
	18	4563	4514	4514	4517	4514	4489	4468	4489	4526	4533	4526	4540	4520	4517	4584	4582	4667	4704	4730	4698	4674	4726	4726	4678	4583	-99	4484		
	19	4646	4588	4550	4543	4531	4549	4571	4572	4590	4592	4580	4559	4504	4495	4534	4534	4571	4603	4620	4595	4575	4544	4506	4522	4561	-112	4449		
	20	4530	4530	4522	4510	4492	4490	4493	4488	4500	4491	4468	4500	4498	4523	4500	4498	4539	4539	4557	4579	4641	4610	4627	4627	4531	-132	4399		
	21	4604	4546	4523	4516	4504	4494	4488	4480	4488	4503	4504	4521	4504	4484	4504	4550	4571	4640	4640	4763	4738	4702	4595	4505	4557	-126	4431		
	22	4529	4529	4561	4547	4527	4525	4527	4524	4537	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	23	—	—	—	—	—	—	—	—	—	—	4518	4484	4501	4484	4459	4501	4526	4558	4558	4623	4603	4568	4568	4580	4580	4538	-123	4415	
	24	4663	4633	4552	4510	4463	4451	4443	4459	4492	4499	4492	4500	4473	4495	4530	4485	4467	4467	4449	4489	4489	4542	4516	4532	4504	-115	4389		
	25	4573	4596	4501	4504	4501	4474	4451	4420	4406	4413	4406	4478	4515	4485	4544	4610	4622	4659	4714	4690	4710	4677	4635	4581	4549	-127	4422		
	26	4555	4555	4527	4508	4484	4482	4484	4452	4436	4463	4475	4509	4509	4498	4550	4525	4539	4581	4623	4659	4689	4703	4657	4635	4546	-138	4408		
	27	4554	4554	4558	4540	4516	4491	4471	4490	4525	4544	4549	4530	4476	4472	4503	4559	4621	4600	4597	4564	4482	4424	4347	4325	4512	-137	4375		
	28	4403	4461	4503	4507	4505	4503	4505	4477	4465	4472	4465	4497	4495	4471	4514	4553	4607	4649	4633	4594	4617	4642	4615	4555	4530	-137	4393		
	29	4530	4554	4554	4557	4554	4518	4487	4465	4459	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	4464	4455	4480	4471	4466	4546	4567	4550	4551	4562	4609	4580	4556	4588	4625	4531	-139	4392	
	31	4590	4547	4515	4508	4495	4490	4490	4488	4502																				

Corr. for 1° Faht. = $\frac{q}{k} = \frac{\text{scd.}}{1.430}$ $k = a. \cotan. \theta. \left(\frac{T}{T'}\right)^2 = 0.000291 \times \cotan. 7^\circ 38' \frac{5}{8} \times \left(\frac{6.918}{6.425}\right)^2 = 0.00025169$ Adopted Temperature 80°.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.		
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
AUGUST 1854. Vertical Force Magnetometer.				-14.2		5.3		-24.7		-0.1		2.5																	
	1	4634	4560	4515	4485	4484	4489	4483	4460	4487	4491	4496	4498	4496	4467	4521	4537	4578	4601	4534	4457	4435	4485	4557	4590	4514	-131	4383	
	2	4603	4550	4519	4497	4503	4507	4501	4476	4500	4506	4512	4514	4512	4483	4537	4598	4572	4543	4502	4480	4464	4443	4528	4587	4518	-138	4380	
	3	4626	4561	4535	4509	4511	4501	4481	4456	4481	4486	4492	4511	4525	4447	4536	4449	4512	4506	4493	4508	4480	4525	4557	4586	4511	-131	4380	
	4	4547	4510	4487	4461	4464	4468	4462	4437	4462	4470	4479	4481	4479	4494	4459	4492	4481	4513	4550	4524	4550	4623	4601	4558	4502	-125	4377	
	5	4534	4474	4470	4456	4470	4475	4470	4446	4471	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6	—	—	—	—	—	—	—	—	—	—	4496	4522	4528	4530	4494	4525	4501	4536	4580	4545	4624	4558	4558	4588	4560	4517	-121	4396
	7	4593	4550	4514	4481	4477	4493	4498	4455	4461	4487	4514	4523	4528	4468	4530	4591	4647	4712	4647	4641	4610	4590	4570	4562	4548	-117	4431	
	8	4532	4532	4532	4518	4532	4522	4501	4478	4505	4514	4523	4525	4523	4483	4522	4508	4534	4533	4477	4370	4389	4471	4471	4525	4501	-120	4381	
	9	4557	4530	4525	4512	4528	4532	4525	4485	4495	4508	4521	4499	4473	4509	4463	4502	4533	4573	4652	4729	4635	4572	4531	4481	4536	-119	4417	
	10	4500	4500	4500	4476	4480	4506	4521	4497	4523	4501	4479	4488	4492	4510	4556	4671	4769	4793	4819	4773	4742	4742	4660	4544	4585	-100	4485	
	11	4516	4550	4522	4498	4502	4506	4499	4465	4480	4486	4492	4494	4492	4456	4475	4526	4588	4656	4695	4769	4790	4774	4752	4616	4567	-95	4472	
	12	4530	4530	4489	4477	4493	4498	4493	4465	4487	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	13	—	—	—	—	—	—	—	—	—	—	4480	4473	4475	4472	4472	4501	4539	4594	4647	4610	4568	4550	4586	4559	4507	4521	-91	4430
	14	4475	4497	4510	4491	4500	4515	4519	4493	4516	4503	4490	4512	4529	4475	4509	4544	4582	4649	4614	4646	4600	4600	4516	4492	4532	-97	4435	
	15	4538	4555	4519	4505	4519	4524	4519	4493	4517	4496	4475	4485	4490	4437	4520	4579	4667	4701	4738	4740	4709	4709	4686	4587	4571	-106	4465	
	16	4578	4563	4563	4496	4458	4474	4480	4456	4481	4481	4481	4496	4507	4471	4514	4562	4628	4689	4726	4687	4651	4587	4549	4526	4546	-111	4435	
	17	4550	4550	4500	4486	4500	4507	4504	4485	4515	4515	4515	4526	4533	4478	4495	4534	4627	4671	4707	4732	4704	4704	4666	4596	4567	-116	4451	
	18	4552	4515	4515	4491	4495	4499	4492	4467	4492	4492	4492	4509	4522	4485	4526	4554	4614	4636	4632	4655	4592	4511	4551	4528	4534	-108	4426	
	19	4570	4570	4530	4516	4530	4530	4520	4495	4520	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	4497	4474	4484	4489	4478	4479	4550	4587	4609	4567	4605	4493	4469	4499	4520	4524	-105	4419
	21	4553	4553	4482	4467	4480	4485	4480	4456	4482	4482	4482	4494	4501	4457	4540	4579	4661	4702	4680	4740	4608	4608	4498	4478	4540	-106	4434	
	22	4529	4506	4495	4481	4495	4489	4472	4448	4473	4478	4484	4494	4500	4497	4521	4521	4604	4660	4635	4669	4603	4603	4540	4512	4530	-105	4425	
	23	4546	4567	4511	4484	4486	4482	4467	4442	4467	4468	4470	4484	4493	4468	4495	4551	4606	4581	4550	4575	4575	4561	4526	4472	4514	-98	4416	
	24	4434	4498	4504	4479	4483	4470	4446	4421	4446	4472	4498	4508	4514	4439	4480	4566	4643	4652	4640	4606	4522	4471	4471	4447	4505	-100	4405	
	25	4528	4506	4529	4496	4491	4487	4472	4447	4472	4460	4448	4435	4418	4481	4420	4505	4550	4504	4615	4690	4485	4470	4457	4440	4492	-101	4391	
	26	4475	4501	4461	4468	4503	4487	4460	4435	4460	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	27	—	—	—	—	—	—	—	—	—	—	4458	4457	4468	4475	4448	4486	4610	4702	4816	4785	4766	4708	4630	4569	4499	4547	-114	4433
	28	4503	4503	4478	4456	4462	4481	4490	4465	4490	4490	4490	4499	4504	4448	4520	4585	4664	4695	4730	4698	4654	4605	4589	4529	4543	-115	4428	
	29	4494	4515	4495	4470	4474	4479	4474	4456	4488	4486	4485	4476	4463	4451	4506	4552	4647	4729	4785	4755	4683	4598	4546	4546	4544	-104	4440	
	30	4505	4505	4505	4469	4462	4467	4462	4437	4462	4473	4485	4503	4516	4461	4495	4554	4632	4557	4565	4596	4610	4610	4510	4475	4513	-91	4422	
	31	4511	4538	4506	4476	4475	4480	4475	4452	4478	4477	4476	4486	4491	4495	4475	4532	4615	4647	4698	4742	4686</							

$$\text{Corr. for 1}^\circ \text{ Faht.} = \frac{q}{k} = 1.425 \quad k = a. \cotan. \theta. \left(\frac{T'}{T} \right)^2 = 0.000291 \times \cotan. \overset{s.}{7^\circ 38' 31''} \times \left(\frac{6.918}{6.410} \right)^2 = 0.00025262 \quad \text{Adopted Temperature } 80^\circ.$$

VERTICAL FORCE MAGNETOMETER.

[illegible]

* The numbers in these Columns are not observed but interpolated, for the sake of obtaining the daily Means. The small figures heading them are the Corrections of interpolations.

$$\text{Corr. for } i^\circ \text{ Faht.} = \frac{q}{k} = \frac{\text{sd.}}{1.423}$$

$$k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.000291 \times \cotan. 7^\circ 40' 16'' \times \left(\frac{6.918}{6.393} \right)^2 = 0.00025299$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras Mean Time.	P.M. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41	Means.	Temperature Corrections.	Corrected Means.		
OCTOBER 1854. Vertical Force Magnetometer.	September 30			-11.3		0.8		18.5		-3.6		7.2																	
	1	4630	4585	4567	4553	4561	4563	4564	4582	4564																4605	- 94	4511	
	2	4623	4623	4597	4577	4580	4576	4570	4581	4555	4551	4555	4574	4578	4520	4640	4687	4785	4850	4866	4781	4744	4680	4615	4589	4637	- 93	4544	
	3	4631	4631	4591	4600	4631	4602	4572	4590	4572	4578	4591	4564	4522	4553	4594	4710	4777	4836	4857	4811	4709	4599	4634	4589	4639	- 86	4553	
	4	4626	4626	4611	4593	4597	4577	4555	4573	4555	4541	4535	4545	4541	4540	4550	4676	4781	4846	4878	4860	4751	4670	4571	4544	4631	- 74	4557	
	5	4544	4587	4572	4561	4572	4569	4564	4576	4552	4543	4541	4540	4525	4490	4581	4648	4743	4853	4940	4893	4791	4701	4642	4615	4631	- 80	4551	
	6	4645	4613	4592	4561	4552	4553	4552	4535	4482	4491	4507	4514	4507	4513	4573	4643	4735	4840	4806	4793	4729	4611	4567	4567	4603	- 82	4521	
	7	4617	4593	4593	4572	4573	4561	4547	4588	4593																			
	8																												
	9	4595	4569	4538	4527	4538	4544	4548	4565	4545	4544	4550	4557	4550	4520	4566	4584	4684	4746	4800	4826	4733	4675	4570	4580	4602	-103	4499	
	10	4593	4560	4560	4549	4560	4561	4560	4583	4570	4554	4546	4534	4508	4495	4495	4562	4623	4710	4738	4709	4679	4627	4596	4556	4585	- 99	4486	
	11	4586	4586	4564	4553	4564	4553	4540	4570	4563	4530	4505	4512	4505	4535	4488	4532	4611	4730	4735	4670	4657	4631	4623	4623	4582	- 98	4484	
	12	4655	4567	4551	4579	4630	4641	4650	4616	4546	4514	4489	4520	4537	4519	4529	4571	4615	4666	4714	4727	4669	4632	4564	4564	4594	- 96	4498	
	13	4590	4554	4549	4538	4549	4550	4549	4589	4592	4522	4460	4507	4539	4501	4567	4622	4735	4854	4894	4859	4771	4690	4627	4566	4616	- 92	4524	
	14	4536	4550	4550	4525	4522	4523	4522	4540	4521																			
	15																												
	16	4581	4551	4554	4542	4552	4513	4472	4515	4522	4508	4501	4508	4501	4497	4503	4562	4614	4712	4814	4732	4620	4631	4583	4558	4569	- 71	4498	
	17	4558	4524	4532	4512	4514	4515	4514	4530	4510	4512	4521	4512	4489	4465	4537	4582	4607	4648	4666	4666	4628	4561	4510	4547	4548	- 52	4496	
	18	4557	4532	4516	4541	4589	4554	4517	4559	4565	4518	4478	4511	4530	4503	4524	4580	4537	4550	4490	4425	4418	4460	4474	4474	4517	- 33	4484	
	19	4523	4506	4521	4502	4505	4527	4547	4557	4530	4512	4502	4514	4512	4507	4532	4621	4709	4802	4802	4774	4691	4620	4545	4545	4579	- 20	4559	
	20	4559	4519	4497	4499	4523	4526	4528	4541	4517	4514	4518	4519	4505	4481	4515	4611	4675	4758	4829	4799	4749	4625	4545	4488	4577	- 16	4561	
	21	4553	4540	4540	4534	4550	4544	4536	4562	4552																			
	22																												
	23	4520	4520	4510	4499	4511	4629	4745	4668	4555	4531	4515	4508	4487	4569	4472	4539	4692	4531	4568	4546	4592	4694	4632	4673	4571	- 25	4546	
	24	4637	4522	4522	4525	4551	4540	4527	4547	4531	4532	4541	4518	4480	4508	4538	4585	4618	4674	4639	4616	4625	4593	4536	4473	4557	- 38	4519	
	25	4509	4509	4561	4502	4466	4467	4466	4479	4456	4444	4440	4503	4551	4501	4561	4545	4598	4689	4769	4718	4726	4632	4585	4536	4551	- 50	4501	
	26	4508	4529	4495	4498	4523	4534	4544	4531	4481	4519	4564	4559	4539	4505	4465	4514	4560	4637	4757	4767	4815	4750	4649	4571	4576	- 51	4525	
	27	4571	4548	4548	4537	4548	4541	4532	4557	4545	4528	4519	4512	4490	4498	4549	4518	4620	4745	4816	4826	4799	4714	4619	4573	4594	- 42	4552	
	28	4594	4540	4540	4529	4540	4542	4542	4557	4535																			
	29																												
	30	4610	4525	4568	4557	4568	4569	4568	4566	4527	4478	4437	4451	4451	4484	4515	4543	4553	4565	4505	4485	4471	4549	4549	4568	4528	- 42	4486	
	31	4551	4553	4553	4536	4541	4550	4558	4557	4520	4504	4495	4485	4461	4456	4548	4581	4601	4660	4645	4617	4649	4615	4549	4549	4556	- 43	4513	
Means.....	4582	4558	4552	4541	4552	4553	4551	4563	4539	4523	4514	4520	4511	4508	4543	4593	4654	4717	4743	4715	4678	4631	4581	4561	4583	4583			
Temp. Corrections.	-75	-71	-66	-65	-64	-62	-61	-59	-58	-56	-56	-54	-54	-51	-50	-54	-59	-64	-68	-72	-74	-76	-77	-76	.....	-63			
Corrected Means..	4507	4487	4486	4476	4488	4491	4490	4504	4481	4467	4458	4466	4457	4457	4493	4539	4595	4653	4675	4643	4604	4555	4504	4485			4520		
Mean Hourly Variations from Monthly Mean.	13	33	34	44	32	29	30	16	39	53	62	54	63	63	27	-19	-75	-133	-155	-123	-84	-35	16	35	.....	$\frac{\Delta Y}{Y} =$	.....	.003921	
	0329	0835	0860	1113	0810	0734	0759	0405	0987	1341	1569	1366	1594	1594	0683	-0481	-1897	-3365	-3921	3112	-2125	-0885	0405	0885	.....				
OCTOBER 1854.<																													

Corr. for $\hat{i}$ Faht. $= \frac{q}{k} = \frac{\text{sed.}}{1.401}$ $k = a. \cotan. \theta. \left(\frac{\hat{T}}{T} \right)^2 = 0.000291 \times \cotan. 7^\circ 38' 38'' \times \left(\frac{6.918}{6.354} \right)^2 = 0.00025703$ Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.				
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.						
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41							
NOVEMBER 1854. Vertical Force Magnetometer.										-7.8 *			19.1 *																		
	1	4588	4592	4612	4592	4592	4537	4537	4537	4546	4536	4541	4547	4514	4531	4529	4494	4531	4568	4611	4648	4650	4625	4605	4558	4568	-44	4524			
	2	4580	4542	4542	4538	4538	4538	4538	4490	4501	4527	4530	4495	4465	4497	4505	4531	4600	4672	4722	4773	4727	4645	4592	4568	-49	4519				
	3	4592	4541	4541	4521	4521	4511	4537	4565	4519	4506	4509	4519	4491	4524	4522	4530	4544	4568	4619	4659	4688	4725	4725	4632	4567	-53	4514			
	4	4585	4559	4559	4564	4536	4545	4545	4550	4550																					
	5													4513	4491	4514	4498	4501	4495	4461	4524	4559	4604	4632	4702	4724	4685	4565	4565	-29	4536
	6	4613	4541	4538	4539	4531	4785	4528	4539	4529	4516	4519	4539	4520	4447	4509	4481	4448	4501	4510	4527	4593	4612	4586	4538	4541	-39	4502			
	7	4538	4505	4505	4505	4505	4505	4526	4526	4505	4474	4459	4487	4477	4496	4512	4514	4581	4625	4594	4574	4630	4684	4684	4642	4544	-44	4500			
	8	4613	4576	4558	4522	4522	4511	4491	4491	4491	4481	4486	4510	4495	4496	4488	4403	4437	4495	4471	4508	4508	4605	4605	4635	4517	-46	4471			
	9	4575	4524	4494	4494	4524	4524	4497	4496	4522	4529	4552	4563	4535	4521	4492	4515	4565	4607	4656	4596	4595	4585	4610	4579	4548	-49	4499			
	10	4593	4532	4527	4510	4510	4511	4511	4491	4504	4500	4511	4533	4516	4506	4499	4522	4492	4500	4557	4567	4603	4598	4648	4555	4533	-41	4492			
	11	4559	4508	4508	4508	4507	4507	4509	4509	4509																					
	12													4487	4481	4498	4476	4478	4515	4508	4474	4418	4389	4391	4445	4497	4583	4558	4493	-27	4466
	13	4535	4535	4514	4502	4502	4474	4474	4474	4461	4459	4472	4500	4490	4480	4527	4469	4511	4483	4455	4501	4585	4623	4640	4616	4512	-24	4488			
	14	4574	4518	4506	4506	4487	4487	4487	4487	4525	4543	4577	4555	4495	4484	4496	4536	4558	4606	4563	4579	4637	4670	4752	4640	4553	-30	4523			
	15	4559	4559	4545	4545	4523	4502	4524	4524	4504	4479	4470	4489	4470	4519	4458	4489	4537	4591	4567	4602	4602	4555	4586	4532	4530	-32	4498			
	16	4510	4494	4473	4504	4504	4504	4504	4479	4482	4500	4519	4499	4487	4492	4521	4561	4625	4631	4592	4633	4684	4684	4634	4543	4543	-31	4512			
	17	4568	4568	4530	4530	4532	4520	4520	4520	4500	4503	4521	4520	4481	4515	4491	4526	4560	4616	4643	4607	4634	4727	4727	4570	4560	-24	4536			
	18	4546	4546	4523	4523	4500	4500	4500	4535	4535																					
	19													4500	4481	4503	4486	4456	4504	4525	4575	4611	4648	4750	4790	4745	4642	4564	4562	-10	4552
	20	4529	4529	4520	4520	4520	4519	4519	4525	4525	4516	4523	4527	4493	4535	4502	4569	4614	4645	4597	4630	4605	4631	4631	4582	4554	-7	4547			
	21	4550	4520	4520	4520	4498	4523	4524	4513	4504	4502	4515	4552	4551	4514	4529	4504	4544	4544	4595	4613	4586	4611	4661	4586	4545	-9	4536			
	22	4536	4493	4493	4463	4511	4511	4515	4515	4494	4510	4542	4563	4546	4490	4496	4555	4622	4665	4707	4707	4654	4689	4595	4574	4560	-10	4550			
	23	4527	4501	4531	4531	4531	4509	4530	4530	4538	4507	4491	4502	4475	4475	4495	4507	4552	4579	4586	4620	4646	4665	4665	4566	4544	-7	4537			
	24	4530	4505	4524	4524	4490	4494	4494	4495	4493	4501	4524	4511	4459	4503	4459	4452	4488	4575	4622	4660	4677	4710	4669	4620	4541	-8	4533			
	25	4544	4503	4475	4485	4485	4463	4463	4468	4468																					
	26													4468	4484	4506	4490	4432	4486	4480	4481	4470	4473	4443	4562	4650	4650	4575	4500	-18	4482
	27	4557	4528	4539	4524	4524	4498	4537	4537	4544	4517	4505	4505	4467	4474	4481	4506	4475	4478	4486	4463	4463	4554	4554	4522	4510	-16	4494			
	28	4474	4509	4468	4468	4468	4366	4367	4355	4355	4386	4433	4480	4488	4548	4585	4574	4595	4606	4569	4568	4619	4674	4696	4660	4513	-11	4502			
	29	4660	4641	4672	4672	4700	4700	4700	4738	4741	4759	4792	4786	4791	4789	4790	4773	4782	4772	4772	4760	4789	4817	4791	4745	4745	-18	4727			
	30	4822	4832	4832	4802	4802	4848	4853	4853	4878	4875	4887	4914	4902	4902	4900	4913	4939	4911	4955	4920	4936	4949	4941	4971	4889	-15	4874			
Means.....	4571	4546	4540	4535	4533	4534	4528	4530	4527	4520	4529	4545	4523	4522	4529	4533	4558	4586	4598	4610	4638	4666	4665	4613	4562						
Temp. Corrections	-37	-32	-27	-26	-25	-23	-22	-20	-20	-19	-18	-17	-16	-15	-14	-18	-24	-29	-33	-37	-40	-42	-42	-39	.....	-26					

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{q}{k} = \frac{\text{sed.}}{1.352}$$

$$k = a. \cotan. \theta. \left(\frac{T'}{T} \right)^2 = 0.0000291 \times \cotan. 7^\circ 39' 15'' \times \left(\frac{6.918}{6.238} \right)^2 = 0.00026632$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41			
DECEMBER 1854. Vertical Force Magnetometer.																											

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. OF 18TH JANUARY 1854, GOTTINGEN MEAN TIME.																								
Gottingen Mean Time.			WEDNESDAY, 18TH JANUARY, 1854.														THURSDAY, 19TH JANUARY, 1854.									
			P.M.																							
			10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.
		0 0	1672	1670	1670	1668	1664	1658	1663	1664	1658	1640	1648	1665	1667	1673	1686	1680	1672	1672	1670	1680	1675	1670	1672	1670
		5 0	72	70	72	67	64	58	65	64	55	40	50	65	68	75	86	79	72	72	70	80	77	73	72	73
		10 0	72	70	72	66	64	58	65	60	52	40	51	66	70	77	86	76	74	72	70	80	78	73	72	74
		15 0	72	70	73	66	63	58	65	63	50	40	53	66	70	78	87	72	74	72	70	79	80	75	70	74
		20 0	72	70	71	66	61	58	65	63	50	40	56	67	70	79	87	70	73	72	70	79	80	77	70	74
		25 0	72	70	70	65	60	58	64	62	49	40	57	67	70	80	88	68	73	72	70	78	80	77	72	72
		30 0	71	70	69	66	60	58	64	63	45	40	58	66	70	81	89	66	73	72	70	77	78	75	72	70
		35 0	71	70	70	66	59	58	63	62	43	41	60	65	70	83	89	65	73	72	71	76	78	75	72	70
		40 0	71	70	70	65	59	58	63	61	41	41	61	65	70	83	88	67	73	73	73	74	74	73	72	70
		45 0	71	70	71	65	58	61	63	63	40	42	63	65	70	83	87	68	72	71	77	70	74	73	70	70
		50 0	71	70	70	65	58	62	63	61	40	43	65	65	71	85	84	69	72	72	78	72	72	73	70	70
	55 0	70	70	70	64	58	62	63	60	40	44	66	66	72	86	82	70	72	71	78	73	72	72	70	70	
	HORIZONTAL FORCE.	m. s.	800	794	797	790	774	732	682	660	617	610	635	706	754	779	811	831	820	793	782	915	920	930	892	858
		2 0	800	794	797	789	772	732	682	660	614	616	640	713	758	779	814	836	814	790	789	916	925	920	886	858
		7 0	800	792	795	787	772	732	680	660	609	617	648	718	761	780	819	839	809	787	792	910	933	910	880	855
		12 0	797	792	793	785	770	732	680	651	610	618	655	723	765	780	828	840	805	784	800	898	940	897	880	850
		17 0	800	790	797	783	764	732	677	640	610	620	661	724	769	782	837	840	800	782	805	880	955	893	880	850
		22 0	800	790	799	782	761	730	675	635	615	622	665	730	769	785	838	840	792	784	829	869	966	898	873	846
		27 0	800	790	801	780	757	719	670	629	616	625	670	734	770	787	839	840	790	780	845	860	960	907	870	840
		32 0	800	790	798	784	755	715	666	624	617	626	675	737	770	790	835	840	790	770	850	862	955	910	866	840
		37 0	800	790	797	782	754	711	660	620	618	627	681	740	772	793	830	840	790	765	855	875	955	903	866	836
		42 0	800	796	795	781	749	695	660	621	611	630	687	747	775	797	829	838	791	770	862	881	940	897	863	836
		47 0	800	796	792	780	736	690	660	620	612	632	695	751	777	802	830	832	793	772	890	890	940	897	860	832
		52 0	797	796	792	779	733	688	660	619	610	635	698	755	778	807	830	827	795	779	899	909	930	895	860	832
	57 0	797	796	792	779	733	688	660	619	610	635	698	755	778	807	830	827	795	779	899	909	930	895	860	832	
	Faht...		78.8	78.8	79.0	78.9	78.8	78.5	78.3	78.5	79.0	79.1	79.3	79.5	79.6	79.8	79.9	79.8	79.8	79.8	79.8	79.8	79.9	79.9	79.9	79.9
Attached Thermometer...		78.8	78.8	79.0	78.9	78.8	78.5	78.3	78.5	79.0	79.1	79.3	79.5	79.6	79.8	79.9	79.8	79.8	79.8	79.8	79.8	79.9	79.9	79.9	79.9	
VERTICAL FORCE.	m. s.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	
	3 0	4655	4636	4621	4606	4632	4699	4730	4819	4907	4935	4899	4840	4704	4649	4691	4713	4697	4664	4664	4750	4718	4682	4649	4656	
	8 0	55	36	21	06	32	99	30	19	07	35	99	27	04	49	91	13	97	64	64	50	18	82	49	86	
	13 0	55	36	21	06	32	99	30	19	07	05	99	10	46	85	91	13	97	64	64	50	18	82	49	86	
	18 0	40	36	21	06	45	99	30	19	42	05	49	10	47	93	91	13	97	64	64	40	18	82	49	86	
	23 0	40	36	15	06	45	99	30	52	42	05	10	93	85	52	91	13	97	64	64	32	18	82	49	86	
	28 0	40	30	15	07	45	99	51	52	42	15	00	67	85	52	91	13	97	64	90	25	18	65	49	86	
	33 0	40	30	15	07	45	99	51	65	42	15	48	75	67	85	91	05	64	64	4700	20	18	65	49	86	
	38 0	32	30	15	07	45	99	51	65	42	15	75	52	85	52	4713	05	64	40	00	10	18	65	49	86	
	43 0	32	30	07	45	66	45	99	79	65	42	05	75	37	64	13	05	64	40	06	10	18	65	49	40	
	48 0	32	30	07	66	45	47	25	79	81	42	05	76	24	64	13	05	64	50	10	10	00	50	49	40	
	53 0	32	30	07	66	67	25	79	81	42	05	76	24	64	91	13	05	64	55	25	10	00	50	49	40	
58 0	32	30	07	66	67	30	79	81	42	00	70	10	64	91	13	05	64	64	25	16	00	50	49	40		
Faht...		78.5	78.5	78.4																						

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 24TH FEBRUARY 1854, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		FRIDAY, 24TH FEBRUARY, 1854.														SATURDAY, 25TH FEBRUARY, 1854.										
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
		0 0	1671	1667	1661	1660	1660	1655	1658	1664	1671	1660	1655	1655	1660	1677	1690	1680	1672	1674	1686	1681	1683	1680	1673	1670
		5 0	71	65	61	60	61	53	59	65	70	60	55	55	62	77	90	80	72	76	85	81	83	80	73	70
		10 0	72	62	60	60	60	53	60	66	70	60	54	56	62	78	90	79	72	79	85	80	83	80	72	70
		15 0	72	64	60	58	60	53	61	68	69	60	54	57	63	78	90	78	72	81	85	80	82	80	71	70
		20 0	68	67	62	57	59	53	61	69	67	60	56	57	66	78	90	80	71	84	84	80	82	80	70	70
		25 0	65	69	63	57	58	52	62	69	65	59	56	58	69	78	90	80	70	88	84	80	82	80	70	70
		30 0	66	69	63	58	59	52	62	70	65	59	56	58	70	80	90	80	72	90	83	80	83	80	70	70
		35 0	68	66	66	59	60	52	62	70	63	58	55	59	70	83	90	80	73	92	82	80	83	78	70	70
		40 0	68	63	68	60	60	53	62	71	63	59	55	59	70	85	90	80	73	91	82	80	84	77	70	70
		45 0	69	61	69	61	59	54	63	71	63	59	55	60	71	88	90	78	73	89	81	83	85	75	70	71
		50 0	70	62	64	60	58	56	63	71	62	55	55	60	71	89	88	74	73	88	80	84	83	74	70	71
		55 0	70	61	62	60	57	57	64	71	62	55	55	60	74	90	83	72	73	87	80	85	82	73	70	71
		HORIZONTAL FORCE.	m. s.	916	930	940	908	892	821	840	851	860	827	820	854	890	1001	1082	1024	922	1007	1000	1040	1058	986	930	928
	2 0		922	930	935	905	890	820	850	845	854	823	820	852	890	02	82	23	924	15	14	40	51	980	928	929
	7 0		920	926	930	895	885	820	862	838	850	820	822	855	892	03	83	21	928	39	18	42	38	977	926	929
	12 0		920	929	925	880	885	820	875	829	847	820	822	858	895	04	83	20	930	67	30	39	35	974	923	930
	17 0		931	932	920	870	884	813	875	822	845	825	825	858	895	04	84	20	941	40	42	37	31	970	920	930
	22 0		936	936	920	865	870	802	869	830	850	822	827	862	895	05	86	20	955	999	57	50	29	967	918	932
	27 0		930	939	917	867	862	791	860	845	853	817	830	868	900	29	86	01	960	970	62	58	20	964	919	934
	32 0		925	942	919	869	855	785	851	848	857	815	835	870	915	47	89	986	977	954	65	60	17	960	920	934
	37 0		925	942	919	870	850	789	850	853	852	820	842	870	926	69	80	969	985	965	59	60	10	957	920	935
	42 0		927	945	915	878	845	798	849	854	850	828	847	870	940	74	61	966	999	970	52	62	08	950	920	935
	47 0		930	949	909	884	830	812	847	855	840	825	850	875	962	76	42	923	995	974	48	65	01	946	924	935
	52 0		930	949	905	886	820	825	850	850	833	825	850	882	969	81	37	901	998	981	42	67	992	940	926	936
	57 0		80.7	80.7	80.7	80.5	80.2	80.0	80.1	80.2	80.5	80.8	81.0	81.1	81.3	81.3	81.5	81.6	81.5	81.7	81.6	81.5	81.3	81.0	81.0	80.9
	Attached Thermometer...		Faht...	80.7	80.7	80.7	80.5	80.2	80.0	80.1	80.2	80.5	80.8	81.0	81.1	81.3	81.3	81.5	81.6	81.5	81.7	81.6	81.5	81.3	81.0	81.0	80.9
VERTICAL FORCE.	m. s.	4696	4740	4788	4716	4765	4759	4773	4782	4786	4757	4780	4776	4751	4798	4788	4738	4708	4757	4749	4749	4722	4722	4711	4711	
	3 0	96	40	88	16	65	59	73	82	86	57	80	76	51	98	88	38	08	57	49	49	22	21	11	11	
	8 0	96	40	88	16	65	66	73	82	86	57	80	76	51	98	88	38	08	57	49	49	22	21	11	11	
	13 0	96	72	88	10	97	66	73	82	86	57	80	76	51	98	88	38	08	57	49	49	22	21	11	11	
	18 0	4714	72	50	10	97	66	73	82	86	57	80	76	51	98	88	38	21	92	49	49	22	21	11	11	
	23 0	14	72	50	10	97	67	73	82	86	57	80	76	51	98	88	38	21	92	49	49	22	21	11	11	
	28 0	14	81	50	4697	90	67	73	83	86	57	80	76	51	98	88	38	21	53	49	49	22	21	11	11	
	33 0	69	81	42	97	85	79	73	83	86	57	80	76	51	98	41	38	21	53	49	49	22	21	11	11	
	38 0	69	74	42	97	80	80	73	83	86	57	80	76	51	98	41	38	21	31	49	49	22	21	11	11	
	43 0	69	74	42	80	80	82	73	83	86	57	80	76	51	98	41	38	21	31	49	49	22	21	11	11	
	48 0	69	74	29	80	80	82	73	83	86	70	80	76	51	98	41	38	21	31	49	49	22	21	11	11	
	53 0	69	74	29	80	80	82	73	83	86	70	80	76	51	98	41	38	21	31	49	49	22	21	11	11	
	58 0	69	74	29	80	80	82	73	83	86	70	80	76	51	98	41	38	21	31	49	49	22	21	11	11	
	Attached Thermometer...		Faht...	80.5	80.5	80.2	80.0	79.6	80.0	80.3	81.0	81.4	81.6	82.0	82.1	82.2	82.4	82.2	81.9	81.8	81.6	81.5	81.3	81.2	80.9	80.6	80.3
INDUCTION INCLINO-METER.	m. s.	1802	1798	1792	1787	1785	1781	1790	1796	1799	1790															

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 22ND MARCH 1854, GOTTINGEN MEAN TIME.

Gottingen Mean Time.			WEDNESDAY, 22ND MARCH, 1854.														THURSDAY, 23RD MARCH, 1854.									
			P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
		0 0	1681	1680	1678	1680	1698	1692	1686	1679	1679	1672	1671	1680	1680	1683	1681	1682	1675	1676	1680	1677	1676	1679	1679	1681
		5 0	81	80	78	80	1700	92	86	79	78	70	72	81	80	83	81	82	75	77	80	77	76	79	79	81
		10 0	81	79	78	81	01	93	86	79	78	70	72	81	80	83	82	82	75	77	80	77	76	78	78	82
		15 0	82	79	77	81	02	92	87	79	78	70	73	81	80	82	82	82	75	77	80	77	76	80	78	82
		20 0	82	79	79	82	01	90	87	78	78	70	74	81	80	82	82	82	75	77	80	77	76	80	78	82
		25 0	82	80	79	85	1699	90	87	79	77	70	74	81	80	83	81	80	75	77	80	76	76	80	79	83
		30 0	82	80	78	86	93	88	84	79	77	70	75	80	80	83	80	80	75	77	80	76	76	80	79	83
		35 0	81	80	78	89	94	88	84	78	76	70	76	80	80	84	80	77	74	77	78	76	77	80	79	82
		40 0	81	78	78	91	93	88	81	79	75	70	76	80	80	82	80	77	74	77	77	76	78	80	80	82
		45 0	80	79	79	95	93	86	81	79	74	70	76	80	80	82	82	76	74	77	77	76	78	80	80	81
		50 0	80	78	79	97	94	86	80	79	73	70	78	80	82	82	82	76	74	77	77	76	78	80	80	80
		55 0	79	78	80	97	92	86	80	79	73	70	80	80	82	82	82	76	74	78	77	76	79	80	80	80
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	892	910	918	906	890	855	785	736	717	760	805	850	870	892	900	910	930	950	975	976	967	959	942	955
		7 0	892	910	915	909	887	855	778	730	715	767	813	854	872	892	903	910	930	950	975	976	967	956	942	957
		12 0	887	914	915	911	887	845	764	726	718	770	820	857	875	894	906	917	930	950	975	976	967	954	941	954
		17 0	887	916	912	907	885	844	755	728	720	772	824	855	878	894	906	922	933	950	975	976	967	952	940	954
		22 0	885	912	916	902	881	835	750	731	720	777	830	851	880	894	906	927	933	952	975	976	967	950	940	951
		27 0	889	914	919	900	880	829	750	732	720	777	835	853	882	894	909	925	940	954	975	976	967	950	945	950
		32 0	889	915	914	900	879	820	740	730	722	774	839	860	884	896	910	925	945	954	975	974	967	949	949	950
		37 0	889	917	910	898	875	818	740	723	720	771	841	862	885	896	914	927	946	960	978	970	966	948	950	952
		42 0	902	919	910	897	877	808	740	723	719	777	844	865	887	895	915	929	947	964	978	968	965	942	950	952
		47 0	902	919	910	892	865	800	742	725	727	779	842	867	888	895	915	926	947	967	976	967	965	940	950	952
		52 0	902	917	914	892	867	793	742	721	740	785	840	868	890	898	912	928	949	967	974	967	964	937	954	950
		57 0	905	917	910	892	859	785	742	719	752	790	847	864	890	898	912	928	952	972	974	967	962	930	959	950
			Faht...	83.6	83.7	83.6	83.4	83.1	83.0	83.3	83.4	83.6	83.8	84.1	84.3	84.6	84.9	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	84.9
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	4787	4735	4695	4668	4693	4722	4751	4805	4816	4793	4766	4739	4739	4740	4721	4721	4715	4720	4718	4696	4685	4680	4669	4669
		3 0	87	35	95	68	93	20	52	05	16	93	66	39	39	40	21	21	15	20	18	96	85	80	69	69
		8 0	87	35	80	68	93	20	52	05	05	93	66	39	39	40	21	21	15	20	18	96	85	80	69	69
		13 0	75	11	80	76	99	20	52	05	05	93	66	39	39	40	21	21	15	20	18	96	85	80	69	69
		18 0	75	11	80	76	99	44	52	05	05	93	45	39	39	40	21	21	15	20	18	96	85	80	69	69
		23 0	75	29	72	76	99	44	52	05	05	93	45	39	39	40	21	21	15	20	18	96	85	80	69	69
		28 0	60	29	72	76	99	46	52	05	05	81	45	39	39	40	21	21	35	20	18	96	85	51	69	69
		33 0	60	29	72	89	99	46	52	05	4787	81	45	39	39	40	21	21	00	20	18	96	86	51	69	69
		38 0	60	29	72	89	4718	46	52	05	87	81	45	39	39	40	21	21	00	20	18	96	86	51	69	69
		43 0	60	37	40	95	20	46	52	19	87	81	45	39	39	40	21	21	00	20	18	96	86	51	69	69
		48 0	60	37	40	95	20	46	76	19	87	81	45	39	39	40	21	21	00	20	18	96	86	51	69	69
		53 0	60	37	40	95	20	46	76	19	87	81	45	39	39	40	21	21	00	20	18	96	86	51	69	69
		58 0	60	37	40	95	20	52	76	19	87	81	45	39	39	40	21	21	00	20	18	96	86	51	69	69
	Faht...	83.5	83.4	83.1	83.0	82.7	83.2	83.5	83.8	84.4	84.7	85.0	85.2	85.4	85.4	85.2	84.9	84.5	84.5	84.5	84.5	84.5	84.5	84.4	84.2	84.1
METEOROLOGICAL OBSERVATIONS.	INDUCTION INCLINO-METER.	m. s.	1790	1789	1783	1784	1798	1799	1783	1778	1778	1774	1774	1782	1782	1786	1786	1789	1780	1782	1784	1783	1782	1782	1781	1782
		0 20	90	89	83	84	99	1800	83	78	78	73	74	8												

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 19TH APRIL 1854, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		WEDNESDAY, 19TH APRIL, 1854.													THURSDAY, 20TH APRIL, 1854.											
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	0	0	1695	1697	1690	1700	1711	1715	1700	1686	1673	1653	1642	1655	1667	1674	1675	1680	1684	1680	1682	1686	1687	1685	1685	1689
	5	0	95	97	90	01	12	12	1695	86	73	52	42	56	68	75	76	80	84	80	83	86	87	85	85	92
	10	0	95	97	90	01	13	12	95	86	73	51	41	57	69	75	77	81	83	80	83	86	87	85	84	92
	15	0	97	97	90	00	13	12	94	82	73	50	40	58	70	74	75	81	82	80	84	86	87	85	84	94
	20	0	96	96	92	00	15	10	94	81	70	50	42	59	70	76	74	81	82	80	84	86	87	85	84	94
	25	0	98	96	94	02	16	10	91	80	68	50	44	60	71	77	76	82	81	80	84	86	87	85	86	95
	30	0	99	95	96	02	16	06	90	80	66	50	46	60	71	78	77	82	81	80	84	86	87	85	88	95
	35	0	1700	95	94	05	18	06	90	80	65	49	48	61	73	77	77	83	80	80	84	87	87	85	88	95
	40	0	00	93	93	07	19	05	90	80	62	48	49	61	73	76	78	83	80	81	84	87	87	85	86	95
	45	0	00	93	95	09	18	03	88	79	61	46	50	62	73	75	78	82	80	81	84	87	87	85	86	95
	50	0	1698	92	96	10	19	02	88	76	59	44	50	65	73	74	79	82	80	81	84	87	87	85	86	95
	55	0	98	92	98	10	15	00	88	76	56	42	53	66	74	74	80	83	80	81	84	87	87	85	86	95
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	2	0	1120	1110	1110	1118	1104	1092	1051	1060	1055	1088	1082	1117	1110	1102	1108	1128	1117	1130	1132	1134	1124	1085	1085	1089
	7	0	26	10	10	18	04	90	54	60	55	88	85	17	11	02	09	28	17	30	32	34	24	85	85	94
	12	0	26	10	10	15	02	90	53	60	59	88	89	18	12	05	14	26	19	30	32	34	24	88	86	98
	17	0	22	14	07	15	02	94	54	49	60	87	93	19	13	08	11	25	20	30	32	34	23	88	86	98
	22	0	20	11	10	17	07	95	50	40	60	86	99	19	10	10	17	22	20	30	32	34	23	88	85	98
	27	0	17	11	14	12	09	90	46	46	62	86	1103	19	10	12	20	20	21	30	32	34	23	86	88	1105
	32	0	17	12	17	14	09	86	40	50	67	85	09	19	10	14	24	20	21	30	32	34	20	86	88	05
	37	0	14	12	17	09	10	75	40	48	70	87	10	20	10	08	26	20	25	32	32	32	16	86	90	08
	42	0	14	12	19	11	09	63	40	48	77	89	10	18	08	10	28	20	30	32	33	30	13	86	90	08
	47	0	14	12	21	04	08	58	60	45	78	90	09	16	03	10	30	20	30	32	33	27	10	88	90	02
	52	0	10	12	21	02	04	54	60	50	79	89	09	14	03	07	30	20	30	32	33	25	03	88	88	02
	57	0	10	11	20	02	10	54	60	52	82	86	13	12	00	05	29	18	30	32	34	25	1091	86	87	02
Faht...			88.2	88.4	88.5	88.5	88.3	88.2	88.3	88.4	88.6	88.9	89.0	89.1	89.2	89.3	89.4	89.2	89.1	89.2	89.3	89.3	89.2	89.1	88.9	88.6
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	3	0	4992	4894	4935	4926	4895	4990	5004	5045	5041	5040	5015	4981	4981	4956	4974	4956	4928	4918	4918	4918	4914	4852	4852	4882
	8	0	92	94	35	26	95	90	04	45	41	40	15	81	81	56	74	56	28	18	18	18	14	52	52	82
	13	0	92	94	35	26	95	90	04	45	41	40	15	81	81	56	74	56	28	18	18	18	14	52	52	82
	18	0	92	94	35	26	90	96	04	45	63	40	15	81	81	56	74	56	28	18	18	18	14	52	52	4920
	23	0	75	94	14	26	90	98	04	45	63	13	15	81	81	56	74	56	28	18	18	18	14	52	52	20
	28	0	75	82	14	20	90	99	10	45	63	13	15	81	81	56	74	56	28	18	18	18	14	52	52	20
	33	0	75	82	14	20	90	5010	10	45	51	13	4972	81	81	56	74	56	28	18	18	18	14	52	52	20
	38	0	75	82	27	20	4949	10	14	56	51	13	72	81	81	56	74	56	23	18	18	18	14	52	52	20
	43	0	70	82	27	20	49	10	45	56	51	13	72	81	81	48	74	56	23	18	18	18	4879	52	52	20
	48	0	70	99	27	05	49	10	45	56	51	13	72	81	81	48	74	56	23	18	18	14	79	52	52	20
	53	0	32	99	27	05	49	4997	40	56	51	13	72	81	81	48	74	56	23	18	18	14	79	52	52	20
	58	0	32	99	27	05	5001	97	40	30	51	13	72	81	81	48	74	56	23	18	18	14	79	52	52	20
Faht...			88.0	88.0	87.9	87.9	88.0	88.3	88.6	88.8	89.3	89.5	90.0	90.0	90.0	89.8	89.7	89.5	89.2	89.1	88.9	88.7	88.4	88.1	88.0	87.9
METEOROLOGICAL OBSERVATIONS.	INDUCTION INCLINO-METER.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	0	20	1792	1794	1790	1797	1810	1809	1795	1785	1775	1760	1750	1762	1770	1776	1779	1780	1782	1782	1783	1786	1789	1787	1787	1789
	5	20	92	94	90	97	12	07	92	85	75	59	50	62	71	76	79	80	83	82	83	86	89	87	87	90
	10	20	92	94	90	97	12	06	91	85	73	58	50	62	71	75	80	80	83	82	83	86	89	87	87	90
	15	20	93	94	90	98	12	04	90	81	72	58	50	62	72	75	80	80	82	82	83	86	89	87	87	91
	20	20	93	94	91	98	14	03	90	80</																

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. OF 26TH MAY 1854, GOTTINGEN MEAN TIME.																							
Gottingen Mean Time.		FRIDAY, 26TH MAY, 1854.														SATURDAY, 27TH MAY, 1854.									
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0 0	1700	1692	1702	1710	1721	1720	1710	1698	1670	1650	1640	1643	1654	1666	1670	1678	1685	1673	1667	1670	1673	1680	1688	1690
	5 0	00	96	02	10	21	20	10	98	68	50	40	45	54	65	71	79	83	73	67	70	73	80	88	90
	10 0	00	96	02	10	21	20	09	93	66	50	40	45	55	64	71	80	82	72	67	70	73	80	88	90
	15 0	00	96	02	10	21	20	09	90	64	50	42	46	55	62	72	80	80	71	67	70	72	80	88	90
	20 0	00	98	02	10	22	20	08	88	62	50	42	47	57	61	72	82	77	71	67	70	72	80	89	90
	25 0	00	99	02	13	20	19	08	82	60	47	42	48	60	60	72	84	75	70	67	70	74	80	89	90
	30 0	00	99	02	18	20	19	07	80	59	45	42	48	61	62	73	87	73	70	67	70	76	80	89	90
	35 0	1698	1700	04	20	20	19	06	79	57	45	42	50	63	63	73	88	73	70	67	70	78	81	89	90
	40 0	98	00	04	20	20	18	02	75	56	43	42	51	67	65	73	89	73	69	67	70	79	83	89	90
	45 0	98	00	06	20	20	14	02	73	56	41	41	52	69	66	73	88	72	68	67	72	79	84	90	90
	50 0	95	00	08	20	20	14	02	72	54	41	41	52	70	67	74	88	75	67	67	72	79	86	90	90
	55 0	92	00	09	20	20	11	01	71	52	40	41	52	68	68	76	86	75	67	67	72	79	87	90	90
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	2 0	1210	1193	1192	1185	1158	1124	1060	1080	1003	988	1030	1098	1182	1230	1250	1278	1277	1276	1268	1274	1262	1240	1239	1236
	7 0	10	93	92	83	58	20	68	80	02	988	35	99	87	27	52	80	73	76	68	74	62	40	39	35
	12 0	08	92	92	83	56	19	70	70	01	985	40	1100	97	20	54	80	70	76	68	74	62	40	39	35
	17 0	08	92	94	82	56	13	75	65	00	985	52	05	1208	25	57	80	70	76	68	74	62	40	39	35
	22 0	05	90	94	82	52	12	86	60	00	982	69	1097	20	27	60	82	69	76	68	74	62	40	39	36
	27 0	00	90	94	80	50	10	84	40	997	990	75	90	26	30	67	85	70	76	68	74	62	40	39	36
	32 0	1198	90	97	80	45	1083	75	37	994	995	82	84	32	37	70	89	70	75	68	74	59	41	39	36
	37 0	98	90	95	80	34	79	83	30	990	1000	89	1109	37	39	70	90	70	72	69	74	51	42	39	37
	42 0	97	90	92	74	39	70	1100	20	984	17	95	28	40	41	70	91	70	70	70	74	42	41	39	38
	47 0	97	90	90	70	35	55	00	18	989	26	99	35	45	45	72	87	69	70	72	70	39	41	36	39
	52 0	95	92	88	62	30	50	1098	15	994	26	97	42	49	47	72	85	68	68	72	64	36	40	35	39
	57 0	95	92	88	60	30	44	95	10	999	29	94	51	41	43	75	80	68	68	72	64	38	39	36	40
	Faht... Attached Thermometer...		91.7	91.7	91.7	91.5	91.0	90.9	91.0	91.3	91.6	92.0	92.5	93.0	93.5	94.0	94.2	94.0	93.9	93.8	93.6	93.4	93.2	93.0	92.9	92.6
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	3 0	4450	4417	4398	4449	4384	4363	4450	4537	4505	4534	4548	4535	4593	4540	4430	4474	4450	4459	4448	4448	4430	4445	4445	4440
	8 0	50	17	98	49	84	63	50	37	05	34	48	35	93	40	30	74	50	59	48	48	30	45	45	40
	13 0	50	17	98	49	84	63	50	37	05	34	48	35	93	40	30	74	50	59	48	48	30	45	45	40
	18 0	50	17	4450	49	84	63	50	37	05	34	24	35	93	07	30	74	27	59	48	48	30	45	45	40
	23 0	50	17	50	49	84	63	50	37	09	39	24	47	99	4446	30	74	27	59	48	48	30	45	45	40
	28 0	50	17	50	49	84	63	50	37	29	67	24	47	99	46	30	74	27	59	48	48	30	45	45	40
	33 0	50	17	50	63	58	95	50	00	29	67	59	47	99	46	65	74	27	59	48	48	30	45	45	40
	38 0	50	17	32	63	58	95	4527	00	61	88	59	59	87	46	65	74	27	59	48	48	30	45	45	40
	43 0	50	17	32	63	58	95	27	00	61	88	59	59	87	46	65	74	27	59	48	48	30	45	45	40
	48 0	50	17	32	20	58	95	27	4495	61	88	76	59	87	46	65	74	27	59	48	48	30	45	45	40
	53 0	50	17	32	20	58	95	27	70	61	99	76	59	87	46	65	74	57	59	48	48	30	45	45	40
	58 0	50	17	32	20	58	4408	27	90	61	99	76	59	87	46	65	74	57	59	48	48	30	45	45	40
	Faht... Attached Thermometer...		91.6	91.3	91.1	90.8	90.5	90.8	91.3	91.6	92.1	92.8	93.5	94.0	94.5	94.8	94.9	94.7	94.2	93.8	93.4	93.0	92.7	92.2	92.0	92.0
METEOROLOGICAL OBSERVATIONS.	INDUCTION INCLINO-METER.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0 20	1780	1778	1779	1782	1793	1799	1802	1780	1765	1750	17													

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 21ST JUNE 1854, GOTTINGEN MEAN TIME.

Göttingen Mean Time.		WEDNESDAY, 21ST JUNE, 1854.														THURSDAY, 22ND JUNE, 1854.									
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0 0	1735	1732	1728	1735	1750	1747	1734	1720	1706	1700	1690	1685	1692	1695	1700	1705	1698	1697	1699	1700	1702	1708	1708	1710
	5 0	32	32	28	37	51	47	34	20	06	00	90	85	92	95	00	05	98	97	99	00	02	08	08	10
	10 0	32	32	29	38	51	45	32	19	05	1699	88	86	90	94	02	06	96	97	99	00	02	08	09	10
	15 0	34	32	29	40	50	45	31	17	05	98	86	87	90	92	04	04	93	98	99	00	02	09	10	10
	20 0	34	32	29	40	50	43	30	16	05	96	85	88	90	90	08	04	93	98	99	00	02	09	10	10
	25 0	32	32	30	42	50	41	30	14	05	95	84	88	91	90	08	02	95	98	99	00	02	09	10	11
	30 0	32	30	31	42	50	40	30	12	03	93	83	89	91	90	10	03	96	98	99	00	03	07	11	11
	35 0	32	29	30	42	50	40	28	10	00	92	82	90	92	93	10	05	96	98	99	00	03	07	12	10
	40 0	30	27	30	45	50	40	27	10	00	91	82	90	94	93	10	04	96	98	99	01	05	06	12	10
45 0	30	27	32	47	50	39	26	10	00	90	84	90	95	96	10	02	96	98	99	01	05	06	12	10	
50 0	30	27	32	49	50	39	24	09	00	90	85	90	95	98	08	00	96	98	99	01	05	07	11	10	
55 0	32	28	32	50	47	37	21	09	00	90	85	91	95	1700	07	1699	96	98	99	01	06	07	10	10	
HORIZONTAL FORCE.	m. s.	1078	1140	1140	1130	1095	1075	1055	1013	979	980	1012	1070	1112	1150	1172	1158	1160	1160	1169	1170	1164	1153	1143	1116
	2 0	72	40	32	27	90	75	54	12	978	980	18	71	18	52	72	58	60	60	69	70	64	53	43	14
	7 0	76	40	30	27	84	73	40	12	975	983	19	72	22	54	74	56	60	60	69	70	64	51	43	14
	12 0	82	32	30	26	89	73	39	10	974	985	23	74	27	59	74	56	60	60	69	70	63	51	43	12
	17 0	82	32	30	20	87	73	28	10	973	986	29	76	29	61	72	56	60	60	68	70	62	50	43	10
	22 0	1100	37	35	16	86	71	24	00	970	987	33	77	33	66	72	57	60	63	68	70	62	50	43	10
	27 0	18	40	37	10	84	70	20	993	974	988	37	79	35	65	70	57	59	64	68	70	60	50	40	13
	32 0	18	40	37	10	84	70	18	991	973	988	42	86	37	65	68	55	59	69	68	70	60	49	37	11
	37 0	25	40	37	02	82	70	18	990	973	991	49	92	39	68	68	57	59	70	68	68	57	49	34	11
	42 0	25	40	32	00	81	63	17	990	972	996	53	98	41	70	65	59	59	70	69	68	57	47	30	10
47 0	35	40	32	00	81	62	15	985	972	999	59	1102	48	70	60	59	59	70	70	67	57	45	27	10	
52 0	35	42	32	00	78	60	13	983	972	1004	64	08	50	72	60	59	59	70	70	66	55	45	20	10	
57 0	35	42	32	00	78	60	13	983	972	1004	64	08	50	72	60	59	59	70	70	66	55	45	20	10	
Faht...		90.9	91.1	91.2	91.0	90.7	90.6	90.7	91.0	91.3	91.5	92.0	92.1	92.2	92.4	92.4	92.0	92.0	92.2	92.3	92.2	92.0	92.0	91.8	91.5
Attached Thermometer...		90.9	91.1	91.2	91.0	90.7	90.6	90.7	91.0	91.3	91.5	92.0	92.1	92.2	92.4	92.4	92.0	92.0	92.2	92.3	92.2	92.0	92.0	91.8	91.5
VERTICAL FORCE.	m. s.	4498	4513	4480	4463	4520	4546	4593	4638	4622	4678	4691	4630	4588	4511	4530	4531	4530	4503	4484	4484	4485	4485	4463	4463
	3 0	98	13	80	63	20	46	93	38	22	78	91	30	88	11	30	31	30	03	84	84	85	85	63	63
	8 0	98	13	80	63	20	46	93	38	22	10	91	30	88	11	30	31	30	03	84	84	85	85	63	63
	13 0	4507	13	72	63	23	46	93	38	22	10	91	30	88	11	30	31	30	03	84	84	85	85	63	63
	18 0	07	13	72	74	23	46	93	38	22	49	91	30	88	11	30	02	30	03	84	84	85	85	63	63
	23 0	07	25	72	74	30	46	93	38	22	49	91	30	88	11	30	02	26	03	84	84	85	85	63	63
	28 0	07	25	72	74	30	46	93	38	22	49	91	30	88	11	30	08	26	03	84	84	85	85	63	63
	33 0	07	25	72	74	30	46	4618	38	62	49	91	30	88	11	30	08	26	03	84	84	85	85	63	63
	38 0	07	25	84	74	30	46	18	38	62	97	91	30	88	11	30	08	26	03	84	84	85	85	63	63
	43 0	32	25	84	74	30	77	18	38	62	97	30	4588	88	11	30	08	26	03	84	84	85	85	63	63
48 0	32	34	84	95	47	77	18	38	62	97	30	88	88	11	30	15	15	03	84	84	85	85	63	63	
53 0	32	34	84	95	47	77	18	38	62	97	30	88	11	11	30	15	15	03	84	84	85	85	63	63	
58 0	32	34	84	95	47	77	18	38	62	97	30	88	11	11	30	15	15	03	84	84	85	85	63	63	
Faht...		90.5	90.5	90.4	90.2	90.2	90.5	90.8	91.3	91.7	92.0	92.6	92.9	93.2	93.0	92.7	91.9	91.5	91.5	91.5	91.4	91.2	90.9	90.8	90.7
Attached Thermometer...		90.5	90.5	90.4	90.2	90																			

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. OF 19TH JULY 1854, GOTTINGEN MEAN TIME.																							
Göttingen Mean Time.		WEDNESDAY, 19TH JULY, 1854.														THURSDAY, 20TH JULY, 1854.									
		P.M.																							
		10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	0 0	1715	1715	1720	1720	1728	1720	1707	1700	1695	1696	1702	1698	1692	1702	1698	1699	1697	1694	1697	1698	1702	1706	1710	1710
	5 0	15	15	20	20	28	20	07	00	94	96	02	97	92	00	97	98	97	94	97	98	02	06	10	10
	10 0	15	16	20	20	28	20	05	00	94	97	02	95	93	00	95	98	97	94	97	98	02	06	10	10
	15 0	15	16	20	20	28	20	04	00	93	98	03	95	94	00	96	99	96	94	97	98	02	06	10	10
	20 0	14	17	20	20	28	16	02	00	93	99	03	94	96	00	97	99	94	94	97	98	02	07	10	10
	25 0	14	17	20	21	28	16	01	00	93	1700	01	92	98	00	96	98	93	94	97	98	02	07	10	10
	30 0	14	18	21	22	27	15	00	1699	92	00	00	91	99	00	96	98	92	94	97	98	02	08	10	10
	35 0	14	19	21	23	25	12	00	99	92	00	00	90	99	01	97	98	92	94	97	99	03	08	10	11
	40 0	15	20	21	24	24	10	00	98	92	00	00	90	1700	02	97	99	92	94	98	1700	03	09	10	11
45 0	15	20	20	26	23	08	00	97	92	00	00	90	00	01	98	98	93	96	98	00	05	09	10	11	
50 0	15	20	20	28	23	08	00	96	93	01	00	90	01	01	99	98	93	97	98	01	05	09	10	11	
55 0	15	20	20	28	21	08	00	95	94	01	00	91	01	00	1700	98	93	97	98	02	05	09	10	11	
HORIZONTAL FORCE.	m. s.	1029	999	1000	995	978	968	940	920	917	920	928	974	1000	1030	1036	1067	1061	1070	1072	1068	1066	1055	1042	1030
	2 0	20	999	00	992	980	967	938	918	915	918	932	974	05	34	39	63	61	70	72	68	65	55	42	30
	7 0	10	999	00	992	980	965	937	917	914	916	940	978	07	37	45	62	61	70	72	68	65	57	42	30
	12 0	02	999	00	993	979	962	935	915	913	914	945	979	10	41	48	60	62	70	72	68	65	59	37	29
	17 0	999	999	00	993	978	960	935	912	914	915	950	979	13	39	50	60	63	70	72	68	64	60	35	29
	22 0	997	998	02	992	976	959	934	911	915	916	956	984	18	37	54	60	63	70	72	68	63	64	34	29
	27 0	997	998	04	990	975	957	930	910	916	917	958	990	19	36	57	59	63	70	72	68	60	60	32	25
	32 0	997	999	06	990	975	955	930	910	916	919	962	990	21	33	58	57	63	71	72	69	54	60	30	25
	37 0	997	1000	09	990	974	952	929	911	916	920	965	994	21	33	60	59	63	72	71	69	54	56	30	24
	42 0	998	00	07	988	972	947	927	911	916	920	967	997	24	32	62	61	64	72	70	69	52	53	27	24
47 0	998	00	01	987	966	943	925	910	917	921	970	999	26	31	65	61	64	74	69	68	52	51	25	22	
52 0	998	00	998	980	967	941	922	910	919	923	972	999	28	30	70	61	64	74	69	68	50	50	24	20	
57 0	Faht...	87.4	87.5	87.5	87.4	87.2	87.0	87.1	87.3	87.6	87.9	88.2	88.9	89.6	89.8	89.8	89.8	89.9	90.0	90.0	90.0	90.0	90.0	90.1	89.9
Attached Thermometer...																									
VERTICAL FORCE.	m. s.	4580	4516	4504	4495	4534	4534	4571	4603	4620	4595	4575	4544	4506	4522	4530	4530	4522	4501	4492	4471	4493	4482	4500	4510
	3 0	80	16	04	95	34	34	71	03	20	95	75	44	06	22	30	30	22	01	92	71	93	82	00	10
	8 0	80	16	04	95	34	34	71	03	20	95	75	44	06	22	30	30	22	01	92	71	93	82	00	10
	13 0	80	16	04	95	34	34	71	03	20	95	75	44	06	22	30	30	22	01	92	71	93	82	00	10
	18 0	80	16	04	95	34	34	71	03	20	95	75	44	06	22	30	30	22	01	92	71	93	82	00	10
	23 0	80	16	04	95	34	34	71	03	20	95	75	44	06	22	30	30	22	01	92	71	93	82	20	98
	28 0	80	16	04	95	34	34	71	03	20	95	75	44	06	22	30	30	22	01	92	71	93	82	20	98
	33 0	80	16	04	95	34	34	71	03	20	95	75	44	06	22	30	30	20	01	92	71	99	70	20	98
	38 0	80	16	04	95	34	34	90	03	20	95	75	44	06	22	30	30	20	01	92	71	99	70	20	98
	43 0	80	16	04	95	34	34	90	03	20	95	75	44	06	22	30	30	20	01	92	74	99	70	20	86
48 0	61	16	04	4527	34	65	90	03	20	95	75	44	06	22	30	30	20	01	92	74	99	70	32	86	
53 0	61	16	04	27	34	65	90	03	20	95	75	44	06	22	30	30	20	01	92	74	99	70	32	86	
58 0	61	16	04	27	34	71	90	03	20	95	75	44	06	22	30	30	20	01	92	74	99	70	32	86	
Faht...		87.2	87.2	87.2	87.0	87.0	87.0	87.0	87.8	88.0	88.7	89.0	89.5	90.0	90.3	90.0	89.9	89.7	89.6	89.5	89.4	89.3	89.3	89.4	89.1
Attached Thermometer...																									
INDUCTION INCLINO-METER.	m. s.	1783	1782	1782	1788	1792	1788	1779	1775	1772	1776	1783	1784	1780	1783	1780	1778	1778	1771	1772	1775	1777	1779	1801	1802
	0 20	83	82	82	88	92	88	78	75	72	76	83	83	80	83	79	77	78	71	72	74	77	79	01	02
	5 20	83	82	82	88	92	88	78	75	71	77	83	83	80	83	78	77	78	71	72	74	77	79	01	02
	10 20	83	82	82	88	92	88	77	75	71	78	83	82	80	83	78	77	77	71	72	74	77	79	01	02
	15 20	83	82	82	88	91	84	76	75	71	79	83	81	81	83	78	78	75	71	72	74	77	79	01	03
	20 20	82	82	82	89	90	84	76	75	71	80	84	80	82	83	78	78	74	72	72	74	77	79	01	03
	25 20	82	82	82	90	90	83	75	74	71	80	85	80	82	83	78	78	72	73	72	74	78	1800	01	03
	30 20	82	82	83	90	90	82	75	74	71	80	85	80	82	83	78	78	71	74	72	75	78	00	01	03
	35 20	82	82	83	90	90	81	75	73	71	80	84	79	82	83	78	77	71	74	73	76	78	00	01	03
	40 20	82	82	83	91	90	80	75	72	72	80	84	79	83	82	78	78	72	74	73	76	78	00	01	03
45 20	82	82	84	92	90	80	75	72	73	81	84	79	83	81	78	78	72	74	74	76	79	01	01	03	
50 20	82	82	86	92	89	79	75	72	74	82	84	79	83	81	79	78	72	72	75	76	79	01	01	03	
55 20	Faht...	86.8	86.8	86.7	86.3	86.2	86.2	86.7	87.2	88.0	88.6	89.3	90.9	91.1	91.3	90.9	90.8	90.1	89.7	89.4	89.1	88.9	88.9	88.9	88.7
Attached Thermometer...																									
METEOROLOGICAL OBSERVATIONS.	Barometer (uncorrected) = 29.0 +.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
	Attached Thermometer.....	0.828	0.822	0.832	0.839	0.860	0.872	0.890	0.884	0.876	0.856	0.826	0.799	0.783	0.779	0.778	0.790	0.806	0.836	0.857	0.871	0.882	0.876	0.866	0.856
	Dry Thermometer (standard)....	84.0	84.0	84.0	83.0	84.0	84.0	85.0	86.0	87.0	88.5	90.5	92.0	93.0	94.0	93.5	93.0	90.5	89.0	88.5	88.0	87.5	86.5	86.0	86.0
	Wet Do.	84.3	84.0	83.2	83.1	83.4	85.3	88.6	90.7	93.2	95.3	97.3	99.8	99.7	100.0	98.4	96.3	92.1	90.3	89.4	88.1	87.6	87.4	87.2	87.2
	Cloudy sky in 8ths.....	77.2	78.0	78.0	77.0	78.0	78.0	78.4	78.6	80.6	82.4	81.7	81.5	81.5	81.0	79.8	81.5	82.0	82.4	81.8	81.6	80.8	81.0	79.0	78.0
	WIND. { Force lbs.....	4	4	7	7	7	7	7	7	6	6	5	4	6	6	7	6	7	7	3	6	7	2	0	0
	{ Direction °	00	00	00	00	00	00	10	30	60	58	52	53	28	30	10	00	00	00	00	00	00	00	00	00
	REMARKS ON THE WEATHER.	259	236	225	225	225	225	225	225	236	247	259	259	281	281	270	00	79	79	90</					

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. OF 25TH AUGUST 1854, GOTTINGEN MEAN TIME.																																		
Gottingen Mean Time.		FRIDAY, 25TH AUGUST, 1854.													SATURDAY, 26TH AUGUST, 1854.																					
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9										
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd.	1682 1687 1680 1685 1712 1716 1698 1677 1663 1655 1645 1657 1667 1677	1688 1683 1676 1674 1676 1678 1681 1685 1690 1690	82 87 80 87 12 16 96 76 62 53 48 59 67 78	88 83 75 74 76 78 81 84 90 90	82 87 79 90 14 15 94 75 63 52 50 60 69 78	89 82 75 74 76 78 82 84 90 90	81 85 79 92 15 13 92 73 62 50 50 60 69 78	87 80 75 74 76 78 82 85 90 90	81 85 78 92 17 11 89 72 62 50 50 60 68 79	86 80 74 74 76 78 82 85 90 90	81 82 79 95 19 10 87 71 60 50 52 62 68 79	85 80 74 74 76 78 82 85 90 90	81 82 79 97 20 10 85 70 57 50 52 62 68 79	84 80 74 74 76 78 83 86 90 90	83 82 79 97 20 10 83 68 56 47 54 62 69 80	83 80 75 74 76 78 83 86 90 90	83 81 80 1701 18 08 81 68 54 46 55 62 71 81	83 80 76 74 76 79 83 87 90 90	85 81 80 04 20 05 80 66 52 45 55 64 72 82	82 80 76 74 76 79 84 88 91 90	85 81 80 06 18 01 80 65 56 45 56 66 73 85	82 80 75 74 76 79 84 88 92 90	85 81 80 09 18 00 80 64 55 45 57 66 75 87	82 77 75 74 76 79 84 89 92 90									
	HORIZONTAL FORCE.	m. s.	990 1014 962 970 968 943 947 871 780 902 925 915 962 1019	1054 1011 1016 1020 1039 1039 1039 1029 1028 1030	990 07 960 970 964 940 934 867 788 910 922 918 966 22	57 11 17 20 39 39 39 26 28 30	992 00 957 971 962 937 927 863 800 918 919 922 969 27	61 07 15 20 39 39 39 27 28 31	992 997 955 974 966 936 920 860 824 927 914 926 974 30	55 05 13 20 39 39 39 24 28 31	997 990 952 977 967 938 913 855 820 930 915 930 980 31	52 01 10 20 39 39 39 22 29 33	999 985 957 975 967 930 902 852 826 936 915 935 987 34	48 07 09 20 39 39 38 20 30 33	1004 980 959 975 969 920 898 855 832 940 912 940 995 39	42 10 07 22 39 39 39 36 22 30 31	06 977 961 979 954 930 896 848 850 937 910 940 999 37	35 12 14 23 39 39 32 24 30 32	09 974 962 976 950 942 895 841 868 935 910 943 1003 37	30 14 18 24 39 39 30 25 32 32	09 970 964 972 952 958 892 834 885 930 910 949 08 35	27 10 20 34 39 39 29 26 32 32	10 970 966 972 950 960 889 827 890 930 913 956 10 42	23 09 20 34 39 39 28 26 32 32	12 970 969 974 947 962 886 800 899 928 915 959 13 50	18 11 20 34 39 39 28 27 30 31										
	Attached Thermometer...	Faht...	86.9 87.2 87.2 87.2 86.8 86.4 86.3 86.1 86.1 86.5 87.0 87.2 87.5 87.8	88.0 88.0 87.9 88.0 88.0 88.0 88.0 87.9 87.8 87.6	VERTICAL FORCE.	m. s.	scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd.	4448 4460 4418 4481 4420 4505 4550 4504 4615 4690 4485 4470 4457 4440	4475 4501 4461 4485 4503 4478 4460 4485 4460 4450	48 60 18 81 20 05 50 04 15 90 85 70 57 40	75 01 61 85 03 78 60 85 60 50	48 60 18 81 20 05 50 04 15 90 85 70 57 40	75 01 61 85 03 78 60 85 60 50	67 79 18 97 12 05 50 04 15 4585 50 25 57 40	87 01 61 85 03 78 60 85 60 50	67 79 02 97 12 05 50 04 30 85 50 25 57 40	87 01 97 85 03 78 60 85 60 50	67 79 02 97 12 42 50 30 30 85 50 25 57 40	87 01 97 85 03 78 60 85 60 50	78 79 02 70 74 42 50 30 30 12 50 25 35 61	87 01 97 85 03 78 60 85 60 50	78 85 02 70 74 42 50 30 30 12 50 25 35 61	87 01 97 85 03 78 60 85 60 50	78 85 29 53 74 42 4497 30 30 12 50 25 35 61	87 4485 97 85 03 78 60 85 60 50	78 85 29 53 74 42 97 30 30 12 50 25 35 61	87 85 97 85 03 78 60 85 60 50	78 85 29 53 74 42 97 30 30 12 50 25 35 61	87 85 97 85 03 78 60 85 60 50							
	Attached Thermometer...	Faht...	86.5 86.5 86.5 86.6 86.4 86.3 86.0 85.9 86.3 86.5 87.2 87.8 88.1 88.3	88.5 88.2 87.9 87.6 87.6 87.2 86.8 86.8 86.6 86.5	INDUCTION INCLINOMETER.	m. s.	scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd. scd.	1782 1788 1780 1787 1809 1809 1792 1779 1765 1760 1755 1765 1774 1781	1790 1784 1780 1778 1780 1780 1782 1785 1786 1790	82 88 80 89 09 08 91 78 67 60 57 65 74 82	90 84 80 78 80 81 83 85 86 90	82 88 80 92 11 07 90 77 67 60 57 65 74 82	90 84 79 78 80 81 83 85 86 90	82 86 78 94 12 06 89 76 64 60 58 68 74 82	90 84 79 78 80 81 83 85 86 90	82 86 78 94 13 05 88 74 62 60 58 68 74 82	89 83 79 78 80 81 83 85 87 90	82 83 79 99 13 03 86 72 60 60 58 68 74 83	88 83 79 80 80 81 83 85 87 90	82 83 80 99 13 01 83 70 59 57 60 70 77 83	86 83 78 80 80 81 83 84 88 90	85 81 80 1802 09 00 82 70 59 56 60 70 78 85	85 83 78 80 80 81 84 84 88 90	85 81 80 04 10 1798 81 69 58 56 60 70 78 86	85 82 78 80 80 81 84 84 88 90	86 81 80 06 10 97 80 67 59 56 63 72 79 88	85 81 78 80 80 81 84 85 89 90	86 81 80 07 10 95 80 66 59 55 64 72 80 89	84 80 78 80 80 81 84 85 89 90							
	Attached Thermometer...	Faht...	86.0 85.8 86.0 86.0 86.4 85.3 85.1 85.0 85.6 86.8 87.3 87.9 88.2 88.5	88.4 88.1 87.8 87.6 87.4 87.2 87.0 87.0 87.0 87.0	Barometer (uncorrected) = 29.0 +.	In. In. In. In. In. In. In. In. In. In. In. In. In.	0.902 0.896 0.922 0.944 0.952 0.958 0.977 0.973 0.976 0.950 0.928 0.906 0.888 0.875	0.871 0.880 0.904 0.926 0.943 0.960 0.958 0.952 0.942 0.934	81.5 81.5 82.0 81.5 81.5 81.5 81.5 82.0 83.0 84.5 86.0 87.0 87.0 88.5	88.5 87.5 86.0 86.0 85.0 85.0 84.5 84.0 83.0 83.0	81.7 81.2 81.7 81.2 81.1 82.4 81.7 83.2 86.3 90.8 92.8 92.3 93.2 93.5	93.0 90.7 87.7 86.6 85.8 85.2 84.7 83.6 84.0 83.5	77.0 77.5 78.0 77.2 75.7 76.1 75.3 75.7 77.6 79.2 80.4 81.0 82.2 82.5	82.8 81.0 81.0 80.4 80.6 80.4 80.5 80.0 80.0 79.8																						
	Cloudy sky in 8ths.....		2 2 5 4 4 5 7 7 5 4 4 2 2 1	3 2 1 1 0 0 1 2 2 2	Wind.	Force lbs.....	.00 .00 .00 .00 .30 .32 .00 .00 .00 .00 .00 .00 .00 .00	— — — — — — — — — —	Direction °	157 169 191 214 225 225 225 225 236 202 112 135 146 146	— — — — — — — — — —	REMARKS ON THE WEATHER.	cu-hz.....	do	fy-cu, cr-hz, nim, sh-lg-NW.....	cu, cu-st, cr-hz.....	do	do	ny-overcast ..	do	cu, d-cr-hz.....	cr-st, hz.....	cu, cu-st, cr-hz.....	cu, cu-st.....	cu-hor.....	do	cu, cr-hz, cr-st.....	do	cu-hor.....	cu-W-hor, lg-SW...	ny-clear, lg-SW.....	clear, lg-S.....	cu-E. hor, lg-E.....	do	do	cu, cr-st, hz.....
	Barometer (uncorrected) = 29.0 +.		In. In. In. In. In. In. In. In. In. In. In. In. In.	0.871 0.880 0.904 0.926 0.943 0.960 0.958 0.952 0.942 0.934	81.5 81.5 82.0 81.5 81.5 81.5 81.5 82.0 83.0 84.5 86.0 87.0 87.0 88.5	88.5 87.5 86.0 86.0 85.0 85.0 84.5 84.0 83.0 83.0	81.7 81.2 81.7 81.2 81.1 82.4 81.7 83.2 86.3 90.8 92.8 92.3 93.2 93.5	93.0 90.7 87.7 86.6 85.8 85.2 84.7 83.6 84.0 83.5	77.0 77.5 78.0 77.2 75.7 76.1 75.3 75.7 77.6 79.2 80.4 81.0 82.2 82.5	82.8 81.0 81.0 80.4 80.6 80.4 80.5 80.0 80.0 79.8																										
	Attached Thermometer.....		81.5 81.5 82.0 81.5 81.5 81.5 81.5 82.0 83.0 84.5 86.0 87.0 87.0 88.5	88.5 87.5 86.0 86.0 85.0 85.0 84.5 84.0 83.0 83.0	Dry Thermometer (standard).....	81.7 81.2 81.7 81.2 81.1 82.4 81.7 83.2 86.3 90.8 92.8 92.3 93.2 93.5	93.0 90.7 87.7 86.6 85.8 85.2 84.7 83.6 84.0 83.5	Wet Do.....	77.0 77.5 78.0 77.2 75.7 76.1 75.3 75.7 77.6 79.2 80.4 81.0 82.2 82.5	82.8 81.0 81.0 80.4 80.6 80.4 80.5 80.0 80.0 79.8																										
	Cloudy sky in 8ths.....		2 2 5 4 4 5 7 7 5 4 4 2 2 1	3 2 1 1 0 0 1 2 2 2	Wind.	Force lbs.....	.00 .00 .00 .00 .30 .32 .00 .00 .00 .00 .00 .00 .00 .00	— — — — — — — — — —	Direction °	157 169 191 214 225 225 225 225 236 202 112 135 146 146	— — — — — — — — — —	REMARKS ON THE WEATHER.	cu-hz.....	do	fy-cu, cr-hz, nim, sh-lg-NW.....	cu, cu-st, cr-hz.....	do	do	ny-overcast ..	do	cu, d-cr-hz.....	cr-st, hz.....	cu, cu-st, cr-hz.....	cu, cu-st.....	cu-hor.....	do	cu, cr-hz, cr-st.....	do	cu-hor.....	cu-W-hor, lg-SW...	ny-clear, lg-SW.....	clear, lg-S.....	cu-E. hor, lg-E.....	do	do	cu, cr-st, hz.....

ABSTRACT OF TERM-DAY OBSERVATIONS,		COMMENCING AT 10 P. M. OF 20TH SEPTEMBER 1854, GOTTINGEN MEAN TIME.																								
Gottingen Mean Time.		WEDNESDAY, 20TH SEPTEMBER, 1854.														THURSDAY, 21ST SEPTEMBER, 1854.										
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	0	0	1685	1682	1680	1681	1703	1702	1692	1676	1652	1641	1640	1650	1676	1678	1680	1674	1670	1678	1679	1685	1685	1690	1690	1692
	5	0	85	82	80	81	03	01	92	75	52	41	40	50	76	78	88	74	70	78	79	85	85	90	90	92
	10	0	85	82	80	82	04	00	91	74	51	41	40	50	74	77	83	72	72	77	80	85	86	90	90	92
	15	0	85	82	80	82	05	00	90	72	51	41	40	50	70	77	80	72	72	76	81	85	87	90	90	92
	20	0	86	82	80	86	05	00	88	71	50	40	40	51	69	79	75	70	74	76	82	85	88	90	90	92
	25	0	86	82	80	89	07	1698	85	69	47	40	40	51	70	79	72	70	75	77	84	85	88	90	91	92
	30	0	86	80	80	92	07	97	82	67	47	40	40	54	70	80	72	70	75	79	84	85	89	90	91	91
	35	0	86	80	81	92	06	96	81	65	47	40	40	59	70	80	72	70	75	79	84	86	90	90	92	91
	40	0	82	80	80	97	06	94	80	62	47	40	41	63	72	80	72	70	75	79	84	86	90	90	92	90
	45	0	82	81	80	99	06	93	79	61	47	40	42	65	72	80	73	70	75	79	84	86	90	90	92	90
	50	0	82	81	80	1700	05	93	78	60	45	40	44	70	74	80	73	70	76	79	84	85	90	90	92	89
	55	0	81	81	80	02	04	93	77	57	44	40	46	74	76	80	73	70	77	79	85	85	90	90	92	89
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	962	972	964	937	950	921	842	780	770	769	803	839	921	980	1010	990	997	1007	1046	1050	1050	1030	1015	1009
	7	0	960	972	956	937	947	917	838	779	769	769	803	859	922	983	10	990	997	08	42	50	50	30	12	09
	12	0	954	972	955	930	946	913	834	778	767	769	803	859	924	986	998	990	998	12	39	50	47	30	10	09
	17	0	952	972	955	932	942	907	830	777	766	769	803	859	930	990	998	990	998	19	38	50	44	30	07	09
	22	0	957	967	952	937	942	890	823	777	765	769	803	859	931	994	998	990	998	22	36	50	42	30	04	09
	27	0	961	967	950	940	940	880	816	777	762	770	803	869	936	998	998	990	999	30	34	50	40	28	02	07
	32	0	963	969	952	942	940	875	810	776	762	770	803	874	939	1007	996	990	999	37	33	50	37	25	02	05
	37	0	966	969	952	945	930	870	801	776	762	770	803	880	947	09	996	990	1000	42	35	54	35	25	05	02
	42	0	967	970	950	950	928	865	792	775	763	771	806	888	952	07	996	990	00	48	39	57	34	24	08	00
	47	0	967	971	950	951	925	859	788	774	764	773	809	894	959	07	999	993	01	47	44	56	34	22	10	00
	52	0	969	971	937	952	923	853	784	773	765	776	809	901	965	09	994	995	02	47	46	55	33	21	10	998
	57	0	970	974	932	952	924	850	780	770	766	779	810	906	973	10	992	995	04	46	48	53	33	20	10	997
	Faht...		86.5	86.6	86.6	86.5	86.2	86.2	86.4	86.6	86.8	87.0	87.2	87.4	87.7	88.0	88.0	87.9	87.9	88.0	88.0	88.0	87.8	87.6	87.3	87.2
Attached Thermometer...		86.5	86.6	86.6	86.5	86.2	86.2	86.4	86.6	86.8	87.0	87.2	87.4	87.7	88.0	88.0	87.9	87.9	88.0	88.0	88.0	87.8	87.6	87.3	87.2	
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	3	0	4485	4456	4555	4435	4535	4595	4651	4642	4597	4503	4533	4533	4587	4545	4569	4531	4526	4504	4521	4525	4521	4516	4499	4460
	8	0	85	56	55	35	35	95	51	42	97	03	33	33	87	45	69	31	26	04	21	25	21	16	99	60
	13	0	85	56	55	35	35	95	51	42	97	03	33	33	87	45	69	31	26	04	21	25	21	16	99	60
	18	0	67	56	55	35	49	95	51	42	97	03	33	33	87	45	69	31	26	04	21	25	21	16	99	60
	23	0	67	34	27	57	49	95	51	42	97	03	33	33	87	45	69	31	26	04	21	25	21	16	99	60
	28	0	82	34	27	57	49	4625	51	42	50	03	33	33	87	45	40	31	26	04	21	25	21	16	87	75
	33	0	82	34	27	57	49	25	51	42	50	03	33	33	87	45	40	31	26	04	21	25	16	16	87	75
	38	0	82	62	27	57	90	25	51	42	50	03	33	33	87	45	40	31	26	04	21	25	16	16	87	75
	43	0	70	62	27	82	90	25	51	42	50	03	33	33	87	45	40	31	04	04	21	25	16	16	87	75
	48	0	70	62	4492	82	90	25	51	42	50	03	33	33	87	45	40	31	04	04	25	21	16	16	87	75
	53	0	70	62	92	97	90	25	51	42	50	03	33	60	87	45	40	31	04	04	25	21	16	16	87	75
	58	0	70	62	92	97	90	25	51	42	50	03	33	60	87	45	40	31	04	04	25	21	16	16	87	75
Faht...		86.4	86.2	86.2	86.0	86.0	86.3	86.8	86.8	87.5	87.8	88.0	88.3	88.4	88.3	88.3	87.8	87.5	87.5	87.5	87.5	87.0	86.7	86.6	86.6	

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 18TH OCTOBER 1854, GOTTINGEN MEAN TIME.

Göttingen Mean Time.			WEDNESDAY, 18TH OCTOBER, 1854.														THURSDAY, 19TH OCTOBER, 1854.										
			P. M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
		0 0	1680	1678	1674	1680	1681	1680	1675	1668	1650	1647	1651	1660	1680	1682	1680	1679	1673	1673	1675	1678	1677	1685	1683	1683	
		5 0	80	78	74	80	82	80	74	67	48	47	52	62	80	82	80	79	73	74	75	78	77	85	84	83	
		10 0	80	78	73	81	81	80	72	66	46	46	53	65	80	82	80	79	73	74	76	78	78	85	84	83	
		15 0	80	77	73	77	81	80	70	64	43	45	55	67	80	82	80	77	73	75	76	78	79	85	85	82	
		20 0	80	76	74	74	80	80	70	60	41	45	57	69	81	82	80	76	73	75	76	78	80	85	85	82	
		25 0	79	76	74	73	81	80	70	58	41	45	58	70	81	82	80	74	73	76	77	78	80	84	85	82	
		30 0	79	76	75	75	81	80	70	56	41	45	59	70	82	82	80	72	73	76	77	77	80	84	85	82	
		35 0	80	75	74	77	80	80	70	54	41	47	60	72	82	82	80	72	73	76	77	77	81	83	85	82	
		40 0	80	75	73	79	80	79	70	52	42	48	60	74	82	82	80	72	73	75	77	76	81	83	84	82	
		45 0	80	75	75	79	80	79	70	52	43	49	60	77	82	82	80	72	73	75	78	75	82	83	84	82	
		50 0	80	75	78	79	81	78	69	50	44	50	60	78	81	80	80	72	73	75	78	75	84	83	84	82	
		55 0	80	75	79	79	81	77	69	50	45	50	60	79	81	80	80	72	73	74	78	75	84	83	84	82	
		MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	834	831	825	825	803	793	760	724	756	753	769	798	805	807	794	798	831	837	842	838	824	825	818	810
7 0	834			831	825	825	801	795	766	730	757	752	770	799	806	807	794	799	831	840	842	836	822	822	818	810	
12 0	831			830	822	821	801	797	772	739	758	750	770	804	807	807	794	800	831	847	842	835	820	820	820	810	
17 0	831			830	822	820	801	804	773	746	759	748	772	808	804	807	793	801	831	845	845	832	820	815	820	810	
22 0	830			830	824	820	800	807	775	756	760	750	774	810	805	807	793	802	832	849	847	831	820	810	820	810	
27 0	832			830	824	820	800	801	740	740	760	754	776	810	805	806	792	803	833	850	848	830	820	810	818	810	
32 0	831			831	825	822	800	800	731	735	760	760	779	810	806	806	790	804	834	850	846	830	820	810	818	810	
37 0	831			831	825	824	800	798	720	730	760	760	780	807	807	806	790	820	834	849	846	830	823	808	817	810	
42 0	830			831	827	815	800	797	715	726	758	760	786	805	808	805	790	823	834	849	846	830	824	808	815	809	
47 0	830			831	824	810	801	795	712	736	755	760	789	806	808	801	792	828	836	849	844	828	824	810	814	809	
52 0	831			831	820	810	801	795	716	742	750	763	789	807	808	799	792	828	838	847	841	827	825	813	814	809	
57 0	831			829	826	808	802	790	720	746	752	766	790	806	809	798	794	830	839	845	840	825	825	815	812	809	
Faht...	82.7			82.8	82.8	82.8	82.7	82.4	82.3	82.0	81.9	81.9	81.9	82.0	82.0	82.0	82.0	82.0	82.0	82.1	82.1	82.2	82.2	82.1	82.0	81.9	81.9
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.			m. s.	4478	4472	4530	4503	4524	4580	4537	4550	4490	4425	4418	4460	4474	4474	4523	4506	4521	4525	4505	4510	4547	4551	4530	4517
		8 0	78	72	30	03	24	80	37	50	90	25	18	60	74	74	23	06	21	25	05	10	47	51	30	17	
		13 0	78	72	30	03	24	80	37	50	90	25	18	60	74	74	23	06	21	25	05	10	47	51	30	17	
		18 0	78	85	30	4490	24	80	37	50	90	25	18	60	74	74	23	06	21	36	4485	10	47	51	30	17	
		23 0	62	85	17	90	20	80	37	50	50	25	18	60	74	74	23	06	21	36	85	10	47	51	30	17	
		28 0	62	85	17	90	20	80	37	50	50	25	18	60	74	74	23	06	21	36	85	10	47	51	30	17	
		33 0	62	99	17	82	20	80	37	50	50	25	18	60	74	74	23	06	21	36	85	35	47	51	30	17	
		38 0	62	99	02	82	20	80	59	50	50	25	18	60	74	74	23	06	21	36	85	35	47	51	30	17	
		43 0	62	4515	02	82	20	80	59	50	50	25	18	60	74	4523	23	06	21	36	85	35	47	51	30	17	
		48 0	54	15	02	97	20	80	59	50	50	25	60	60	74	23	23	06	21	36	85	35	47	51	30	17	
		53 0	54	15	02	97	20	80	59	50	50	25	60	60	74	23	23	06	21	36	85	35	47	51	30	17	
		58 0	54	15	02	97	20	80	59	50	50	18	60	74	74	23	23	06	21	36	85	35	47	51	30	17	
		Faht...	82.5	82.3	82.0	82.0	82.0	82.0	81.8	81.5	81.4	81.5	81.6	81.9	82.0	81.9	81.7	81.6	81.6	81.6	81.7	81.7	81.7	81.5	81.4	81.1	
		METEOROLOGICAL OBSERVATIONS.	INDUCTION INCLINO-METER.	m. s.	1800	1798	1794	1799	1800	1801	1793	1788	1773	1770	1777	1781	1799	1800	1799	1796	1793	1793	1794	1796	1796	1800	1800	1800
5 20	00			98	94	1800	01	01	92	87	71	70	77	82	1800	00	99	96	93	94	94	96	96	00	00	00	
10 20	00			98	93	00	00	01	92	87	70	70	78	84	00	00	99	95	93	94	95	96	96	00	02	00	
15 20	00			97	93	1798	01	01	91	86	69	70	79	86	00	00	99	94	93	95	95	96	96	00	02	00	
20 20	00			97	93	96	00	01	90	83	69	70	80	88	00	00	99	93	93	95	96	95					

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 24TH NOVEMBER 1854, GOTTINGEN MEAN TIME.																												
Gottingen Mean Time.			FRIDAY, 24TH NOVEMBER, 1854.														SATURDAY, 25TH NOVEMBER, 1854.											
			P.M.														Noon											
			10	11	12	13	14	15	16	17	18	19	20	21	22	23	1	2	3	4	5	6	7	8	9			
			scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.			
			1690	1690	1691	1689	1676	1679	1688	1690	1689	1690	1706	1716	1710	1705	1699	1693	1690	1689	1688	1687	1686	1690	1690	1688		
			90	90	91	90	75	79	89	90	89	92	08	16	10	05	99	93	90	89	88	87	86	90	90	88		
			10	0	0	90	75	80	90	90	88	94	08	16	10	04	99	92	90	89	88	87	86	90	90	88		
			15	0	0	89	75	80	90	90	88	96	10	16	10	03	1700	92	90	89	88	87	86	90	90	88		
			20	0	0	89	72	81	90	90	88	96	10	16	10	03	00	92	90	89	88	87	86	90	90	88		
			25	0	0	89	71	82	90	90	88	98	10	14	10	01	00	92	90	89	87	87	87	90	90	88		
			30	0	0	90	72	83	90	90	88	98	12	14	10	01	00	91	90	89	87	87	88	90	90	88		
			35	0	0	90	72	84	90	90	88	1700	14	14	09	00	1698	91	89	89	87	87	89	90	90	87		
			40	0	0	91	74	85	90	90	88	00	14	14	09	1699	98	91	89	89	87	87	89	90	90	87		
			45	0	0	91	75	86	90	90	88	02	14	12	08	98	97	91	89	89	87	87	89	90	90	87		
			50	0	0	91	77	87	90	90	90	02	14	12	08	99	95	91	89	89	87	87	90	90	90	87		
			55	0	0	91	78	88	90	90	90	04	14	12	07	99	95	90	89	89	87	87	90	90	90	87		
DECLINATION.			m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.			
			0	0	1690	1690	1691	1689	1676	1679	1688	1690	1689	1690	1706	1716	1710	1705	1699	1693	1690	1689	1688	1687	1686	1690	1690	1688
			5	0	90	90	91	90	75	79	89	90	89	92	08	16	10	05	99	93	90	89	88	87	86	90	90	88
			10	0	90	90	91	90	75	80	90	90	88	94	08	16	10	04	99	92	90	89	88	87	86	90	90	88
			15	0	89	90	91	89	75	80	90	90	88	96	10	16	10	03	1700	92	90	89	88	87	86	90	90	88
			20	0	89	90	92	89	72	81	90	90	88	96	10	16	10	03	00	92	90	89	88	87	86	90	90	88
			25	0	89	90	92	87	71	82	90	90	88	98	10	14	10	01	00	92	90	89	87	87	87	90	90	88
			30	0	90	88	91	85	72	83	90	90	88	98	12	14	10	01	00	91	90	89	87	87	88	90	90	88
			35	0	90	88	90	82	72	84	90	90	88	1700	14	14	09	00	1698	91	89	89	87	87	89	90	90	87
			40	0	91	88	90	80	74	85	90	90	88	00	14	14	09	1699	98	91	89	89	87	87	89	90	90	87
			45	0	91	89	90	79	75	86	90	90	88	02	14	12	08	98	97	91	89	89	87	87	89	90	90	87
			50	0	91	90	90	79	77	87	90	90	90	02	14	12	08	99	95	91	89	89	87	87	90	90	90	87
			55	0	91	90	90	79	78	88	90	90	90	04	14	12	07	99	95	90	89	89	87	87	90	90	90	87
HORIZONTAL FORCE.			m.	s.	744	750	748	751	740	718	690	664	650	648	650	660	693	710	730	750	751	760	762	767	768	773	775	780
			2	0	744	750	747	751	737	717	688	664	648	648	653	660	695	710	730	750	751	760	762	768	768	773	775	780
			7	0	742	750	747	749	736	715	684	663	647	648	653	660	695	710	730	752	751	760	762	768	768	774	775	780
			12	0	745	754	749	751	732	713	681	662	647	650	655	660	697	712	734	750	751	760	762	768	768	774	776	780
			17	0	747	754	752	751	730	711	679	659	648	650	655	665	700	712	738	750	751	760	761	768	768	775	776	781
			22	0	749	752	750	750	730	709	676	657	648	650	655	665	700	715	740	750	752	760	761	768	769	775	776	781
			27	0	746	749	750	750	730	706	674	655	648	650	655	668	700	716	740	751	755	761	761	768	770	774	777	781
			32	0	746	745	750	748	727	704	673	651	648	650	657	670	700	718	742	752	756	762	761	768	771	774	777	780
			37	0	742	745	750	748	727	701	671	650	650	650	657	678	700	720	742	752	756	762	761	768	772	775	778	780
			42	0	745	742	750	747	724	701	670	650	650	650	658	680	704	720	747	752	756	762	763	768	772	776	778	781
			47	0	750	742	747	747	722	700	668	650	649	650	658	686	705	725	747	751	758	762	764	768	771	776	779	781
			52	0	750	742	747	749	720	700	665	651	649	650	658	690	707	728	750	751	757	772	764	768	772	776	779	782
			57	0	750	742	747	749	720	700	665	651	649	650	658	690	707	728	750	751	757	772	764	768	772	776	779	782
Faht...			80.3	80.6	80.8	80.9	80.9	80.6	80.6	80.8	80.9	81.0	81.3	81.5	81.5	81.4	81.2	81.2	81.3	81.3	81.3	81.3	81.3	81.2	81.2	81.0	81.0	
Attached Thermometer...			80.3	80.6	80.8	80.9	80.9	80.6	80.6	80.8	80.9	81.0	81.3	81.5	81.5	81.4	81.2	81.2	81.3	81.3	81.3	81.3	81.3	81.2	81.2	81.0	81.0	
VERTICAL FORCE.			m.	s.	4524	4506	4459	4503	4459	4452	4488	4575	4622	4660	4677	4710	4669	4620	4544	4503	4475	4485	4485	4463	4463	4468	4468	4471
			3	0	24	06	59	03	59	52	88	75	22	60	77	10	69	20	44	03	75	85	85	63	63	68	68	71
			8	0	24	06	59	03	59	52	88	75	22	60	77	10	69	20	44	03	75	85	85	65	63	68	68	71
			13	0	17	06	59	4487	59	52	88	75	22	60	77	10	50	20	44	03	75	85	85	63	63	68	68	71
			18	0	17	4627	72	87	32	52	88	75	22	75	77	10	50	20	44	03	75	85	85	63	63	68	68	71
			23	0	17	27	72	87	32	52	88	75	22	75	77	10	50	20	44	03	75	85	85	63	63	68	68	71
			28	0	17	27	72	87	32	52	88	75	22	75	77	10	50	20	44	03	75	85	85	63	63	68	68	71
			33	0	17	27	72	87	32	52	88	75	22	75	77	26	50	20	44	03	75	85	85	63	63	68	68	71
			38	0	17	27	72	70	32	52	88	75	22	75	77	26	50	20	44	03	75	85	85	63	63	68	68	71
			43	0	17	00	72	70	36	52	4525	4625	22	75	77	26	50	07	44	03	75	85	85	63	63	68	68	71
			48	0	17	00	72	70	36	52	25	25	22	75	77	80	50	07	44	03	75	85	85	63	63	68	68	71
			53	0	17	4506	85	70	36	52	25	25	40	75	77	80	50	07	44	03	75	85	85	63	63	68	68	71
			58	0	17	00	85	70	36	52	25	25	40	75	77	80	50	07	44	03	75	85	85	63	63	68	68	71
Faht...			80.0	80.0	80.1	80.1	80.2	80.5	80.7	81.1	81.5	82.0	82.3	82.5	82.0	81.8	81.5	81.2	81.0	81.0	81.0	81.0	80.9	80.8	80.7	80.7	80.7	
Attached Thermometer...			80.0	80.0	80.1	80.1	80.2	80.5	80.7	81.1	81.5	82.0	82.3	82.5	82.0	81.8	81.5	81.2	81.0	81.0	81.0	81.0	80.9	80.8	80.7	80.7	80.7	
INDUCTION INCLINO-METER.			m.	s.	1810	1810	1810	1807	1797	1799	1807	1809	1808	1807	1820	1828	1823	1818	1816	1813	1809	1809	1808	1807	1807	1809	1809	1808
			0	20	10	10	10	09	97	1800	08	09	07	09	22	28	22	18	16	12	09	09	08	07	07	09	09	08
			5	20	10	10	10	09	96	00	08	09	06	10	22	28	22	18	16	12	09	09	08	07	07	09	09	08
			10	20	10	10	10	07	96	00	08	09	06	14	25	28	22	17	16	12	09	09	08	07	07	09	09	08
			15	20	10	10	11</																					

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 20TH DECEMBER 1854, GOTTINGEN MEAN TIME.

Gottingen Mean Time.			WEDNESDAY, 20TH DECEMBER, 1854.														THURSDAY, 21ST DECEMBER, 1854.										
			P.M.														Noon										
			10	11	12	13	14	15	16	17	18	19	20	21	22	23	1	2	3	4	5	6	7	8	9		
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.		
		0 0	1670	1665	1662	1665	1661	1662	1667	1669	1658	1648	1656	1668	1677	1682	1680	1670	1675	1670	1668	1668	1667	1670	1680	1674	
		5 0	70	66	63	67	60	62	67	67	56	48	56	68	77	82	78	70	75	70	68	68	67	70	80	72	
		10 0	70	66	63	67	60	62	68	66	54	48	56	68	78	82	78	70	73	69	68	68	67	70	81	71	
		15 0	69	66	63	68	60	62	68	65	52	48	58	68	78	84	76	70	73	68	68	68	68	71	81	70	
		20 0	68	66	61	69	61	62	68	64	50	48	59	69	78	84	73	69	70	68	68	69	68	71	82	69	
		25 0	68	65	60	69	59	63	68	62	50	49	59	71	78	85	73	69	70	68	68	69	68	72	84	69	
		30 0	67	63	60	67	56	63	68	62	49	49	60	72	79	85	72	69	70	68	68	69	68	73	85	68	
		35 0	67	63	62	67	56	62	68	62	48	50	61	73	79	85	72	70	70	68	68	69	67	74	82	68	
		40 0	66	63	63	64	59	63	68	61	47	50	62	73	79	83	72	72	70	68	68	68	67	76	80	68	
		45 0	66	62	61	62	60	62	69	60	46	51	64	73	80	83	70	72	70	68	68	66	67	77	79	68	
		50 0	65	62	60	63	60	62	69	60	46	52	66	74	80	82	70	72	70	68	68	67	67	78	77	67	
		55 0	65	62	60	62	60	62	69	60	46	54	67	75	81	82	70	73	70	68	68	67	67	78	76	67	
		HORIZONTAL FORCE.	m. s.	664	662	660	653	625	572	562	538	534	549	576	628	612	630	657	658	678	672	677	688	672	690	700	688
			7 0	662	660	662	653	620	572	562	537	534	550	576	628	612	630	658	658	676	672	678	689	673	694	700	687
			12 0	662	663	665	650	615	572	558	536	534	552	576	628	612	632	660	658	676	674	679	686	675	694	700	685
			17 0	665	667	667	650	612	570	550	534	534	553	581	628	612	633	660	658	674	676	679	682	676	697	700	685
			22 0	665	667	663	656	610	570	546	532	536	555	584	628	613	639	663	660	674	675	680	679	677	699	700	683
			27 0	663	665	662	652	588	569	542	530	539	556	588	628	615	640	663	660	674	676	680	676	677	700	700	683
32 0	663		664	660	650	588	569	550	530	547	558	589	623	615	646	663	666	672	674	682	673	678	700	699	683		
37 0	660		662	662	650	587	567	547	530	546	560	590	620	618	653	663	668	670	672	685	670	678	703	697	683		
42 0	660		662	665	647	586	567	545	531	545	562	592	616	618	660	663	675	672	670	688	672	679	703	696	680		
47 0	662		660	660	647	581	568	542	531	543	566	594	610	620	678	660	678	672	671	688	673	679	702	693	680		
52 0	662		657	657	643	580	569	540	531	544	571	610	611	623	668	660	678	671	672	688	672	684	702	690	680		
57 0	662		657	657	640	577	569	539	532	544	576	628	612	628	660	660	678	671	674	688	672	687	700	690	680		
Faht...	78.2		78.5	78.7	78.7	78.3	78.0	77.9	77.9	78.1	78.3	78.5	78.9	78.9	79.0	79.0	79.0	79.0	79.2	79.1	79.0	79.0	79.1	79.1	79.1	79.1	
Attached Thermometer...	78.2		78.5	78.7	78.7	78.3	78.0	77.9	77.9	78.1	78.3	78.5	78.9	78.9	79.0	79.0	79.0	79.0	79.2	79.1	79.0	79.0	79.1	79.1	79.1	79.1	
VERTICAL FORCE.	m. s.		scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	3 0		5255	5205	5230	5190	5212	5219	5261	5273	5293	5254	5249	5235	5215	5262	5290	5226	5227	5227	5236	5236	5218	5247	5260	5232	
	8 0		55	05	30	90	12	19	61	70	93	54	49	35	15	62	90	26	27	27	36	36	18	47	60	32	
	13 0		55	05	30	90	12	19	61	70	93	54	49	35	15	62	90	26	27	27	36	36	18	47	60	32	
	18 0		55	05	30	90	12	38	61	70	93	54	49	35	15	62	67	26	27	27	36	36	18	47	60	32	
	23 0	55	5172	67	52	00	38	61	70	93	54	49	35	15	62	67	26	27	27	36	36	18	47	60	32		
	28 0	55	72	67	52	5198	46	61	70	93	54	49	35	26	62	67	26	27	27	36	36	18	47	60	32		
	33 0	72	72	67	52	96	46	70	70	77	54	49	35	26	62	67	26	27	27	36	36	18	47	60	32		
	38 0	72	72	67	52	96	53	70	70	77	54	49	35	42	62	67	26	27	27	36	36	18	47	60	32		
	43 0	72	72	67	30	5208	53	70	70	77	54	49	35	42	62	67	54	27	27	36	36	18	47	60	32		
	48 0	72	72	40	30	08	57	79	70	77	54	49	35	42	62	50	54	27	36	36	36	18	47	60	32		
	53 0	72	72	40	30	08	57	79	70	77	54	49	35	42	90	50	54	27	36	36	18	18	47	60	32		
	58 0	72	72	40	30	19	57	79	70	77	54	49	35	42	90	50	54	27	36	36	18	18	47	60	32		
	Faht...	78.3	78.0	78.0	77.8	77.5	77.7	78.5	78.6	79.0	79.4	79.4	79.9	79.8	80.0	79.8	79.4	79.1	79.0	78.8	78.8	78.7	78.6	78.4	78.2		
	Attached Thermometer...	78.3	78.0	78.0	77.8	77.5	77.7	78.5	78.6	79.0	79.4	79.4	79.9	79.8	80.0	79.8	79.4	79.1	79.0	78.8	78.8	78.7	78.6	78.4	78.2		
	INDUCTION INCLINO-METER.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
		0 20	1790	1787	1786	1790	1787	1783	1790	1792	1788	1779	1787	1799	1807	1815	1810	1800	1802	1799	1799	1797	1796	1798	1800	1798	
		5 20	90	89	88	91	87	87	91	92	87	79	87	99	07	15											

STATION		DATE		TIME		WIND		WAVE		CURRENT		REMARKS	
No.		Month		Day		Direction		Height		Speed		Direction	
1		Jan		1		N		10		1.0		S	
2		Jan		2		N		10		1.0		S	
3		Jan		3		N		10		1.0		S	
4		Jan		4		N		10		1.0		S	
5		Jan		5		N		10		1.0		S	
6		Jan		6		N		10		1.0		S	
7		Jan		7		N		10		1.0		S	
8		Jan		8		N		10		1.0		S	
9		Jan		9		N		10		1.0		S	
10		Jan		10		N		10		1.0		S	
11		Jan		11		N		10		1.0		S	
12		Jan		12		N		10		1.0		S	
13		Jan		13		N		10		1.0		S	
14		Jan		14		N		10		1.0		S	
15		Jan		15		N		10		1.0		S	
16		Jan		16		N		10		1.0		S	
17		Jan		17		N		10		1.0		S	
18		Jan		18		N		10		1.0		S	
19		Jan		19		N		10		1.0		S	
20		Jan		20		N		10		1.0		S	
21		Jan		21		N		10		1.0		S	
22		Jan		22		N		10		1.0		S	
23		Jan		23		N		10		1.0		S	
24		Jan		24		N		10		1.0		S	
25		Jan		25		N		10		1.0		S	
26		Jan		26		N		10		1.0		S	
27		Jan		27		N		10		1.0		S	
28		Jan		28		N		10		1.0		S	
29		Jan		29		N		10		1.0		S	
30		Jan		30		N		10		1.0		S	
31		Jan		31		N		10		1.0		S	
32		Jan		32		N		10		1.0		S	
33		Jan		33		N		10		1.0		S	
34		Jan		34		N		10		1.0		S	
35		Jan		35		N		10		1.0		S	
36		Jan		36		N		10		1.0		S	
37		Jan		37		N		10		1.0		S	
38		Jan		38		N		10		1.0		S	
39		Jan		39		N		10		1.0		S	
40		Jan		40		N		10		1.0		S	
41		Jan		41		N		10		1.0		S	
42		Jan		42		N		10		1.0		S	
43		Jan		43		N		10		1.0		S	
44		Jan		44		N		10		1.0		S	
45		Jan		45		N		10		1.0		S	
46		Jan		46		N		10		1.0		S	
47		Jan		47		N		10		1.0		S	
48		Jan		48		N		10		1.0		S	
49		Jan		49		N		10		1.0		S	
50		Jan		50		N		10		1.0		S	
51		Jan		51		N		10		1.0		S	
52		Jan		52		N		10		1.0		S	
53		Jan		53		N		10		1.0		S	
54		Jan		54		N		10		1.0		S	
55		Jan		55		N		10		1.0		S	
56		Jan		56		N		10		1.0		S	
57		Jan		57		N		10		1.0		S	
58		Jan		58		N		10		1.0		S	
59		Jan		59		N		10		1.0		S	
60		Jan		60		N		10		1.0		S	
61		Jan		61		N		10		1.0		S	
62		Jan		62		N		10		1.0		S	
63		Jan		63		N		10		1.0		S	
64		Jan		64		N		10		1.0		S	
65		Jan		65		N		10		1.0		S	
66		Jan		66		N		10		1.0		S	
67		Jan		67		N		10		1.0		S	
68		Jan		68		N		10		1.0		S	
69		Jan		69		N		10		1.0		S	
70		Jan		70		N		10		1.0		S	
71		Jan		71		N		10		1.0		S	
72		Jan		72		N		10		1.0		S	
73		Jan		73		N		10		1.0		S	
74		Jan		74		N		10		1.0		S	
75		Jan		75		N		10		1.0		S	
76		Jan		76		N		10		1.0		S	
77		Jan		77		N		10		1.0		S	
78		Jan		78		N		10		1.0		S	
79		Jan		79		N		10		1.0		S	
80		Jan		80		N		10		1.0		S	
81		Jan		81		N		10		1.0		S	
82		Jan		82		N		10		1.0		S	
83		Jan		83		N		10		1.0		S	
84		Jan		84		N		10		1.0		S	
85		Jan		85		N		10		1.0		S	
86		Jan		86		N		10		1.0		S	
87		Jan		87		N		10		1.0		S	
88		Jan		88		N		10		1.0		S	
89		Jan		89		N		10		1.0		S	
90		Jan		90		N		10		1.0		S	
91		Jan		91		N		10		1.0		S	
92		Jan		92		N		10		1.0		S	
93		Jan		93		N		10		1.0		S	
94		Jan		94		N		10		1.0		S	
95		Jan		95		N		10		1.0		S	
96		Jan		96		N		10		1.0		S	
97		Jan		97		N		10		1.0		S	
98		Jan		98		N		10		1.0		S	
99		Jan		99		N		10		1.0		S	
100		Jan		100		N		10		1.0		S	

MADRAS, 1855.

MAGNETICAL OBSERVATIONS.

$$\alpha \left(1 + \frac{H}{F} \right) = 4.030 \times 1.00060 = 4.0324$$

$$\rho = 41' 8.2'' + 7' 6.0'' = 0' 48'' 14.2'' \text{ East of North.}$$

Zero 1497.

DECLINATION MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Daily Means.	Absolute De- clination East of North.	
Madras Mean Time.	P.M. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41			
MARCH 1855. Declination Magnetometer.	1	1670	1669	1672	1670	1670	1672	1667	1665	1662	1662	1660	1655	1650	1650	1649	1654	1668	1670	1670	1673	1670	1660	1660	1658	1664	0° 59' 28"
	2	660	660	660	661	661	662	662	662	660	661	660	658	657	655	650	654	662	669	665	670	668	661	672	679	662	59 20
	3	677	672	669	662	662	668	667	666	660	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4	—	—	—	—	—	—	—	—	—	668	675	675	675	660	676	682	690	697	692	694	684	682	682	680	676	1 0 16
	5	671	667	669	665	664	665	665	664	667	669	670	670	669	670	670	679	682	678	662	654	655	656	662	669	667	0 59 40
	6	671	672	671	671	671	668	670	670	671	674	675	671	668	668	660	672	679	673	673	670	660	652	648	657	668	59 44
	7	660	660	660	661	663	659	660	661	662	664	665	663	660	660	665	658	660	658	660	650	650	654	670	671	661	59 16
	8	669	663	661	661	661	661	661	662	665	668	670	665	661	660	660	661	667	666	650	640	630	630	638	650	658	59 3
	9	650	650	644	648	651	660	660	656	660	665	668	669	669	670	666	667	660	660	652	650	650	650	650	660	658	59 3
	10	658	659	658	658	660	660	660	662	663	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	11	—	—	—	—	—	—	—	—	—	665	666	665	665	665	660	668	670	672	663	661	653	650	663	669	662	59 20
	12	659	652	653	665	667	671	670	678	680	681	680	678	675	687	664	675	672	678	665	662	657	652	658	667	669	59 48
	13	670	670	670	670	669	668	668	670	670	669	667	667	668	670	679	674	679	675	665	655	640	640	658	667	667	59 40
	14	666	667	666	661	661	663	661	662	662	664	665	667	668	670	679	680	670	659	640	630	625	630	642	660	659	59 7
	15	669	663	662	662	668	663	660	660	660	662	662	660	659	662	670	676	675	670	650	636	634	647	651	668	660	59 12
	16	669	658	653	650	650	651	652	652	655	653	650	653	655	659	668	680	685	683	660	642	642	639	645	660	657	58 59
	17	662	658	653	652	650	649	653	652	651	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	18	—	—	—	—	—	—	—	—	—	655	658	654	650	650	652	660	660	660	670	669	665	662	666	661	657	58 59
	19	660	660	662	665	662	655	661	665	660	656	650	650	650	642	650	658	672	670	660	654	650	661	668	671	659	59 7
	20	665	660	657	653	656	665	667	669	656	656	654	654	654	655	660	664	670	665	657	642	651	659	669	660	659	59 7
	21	654	655	656	658	659	660	660	661	663	665	666	664	663	658	673	673	670	678	677	656	644	640	657	662	661	59 16
	22	661	660	657	659	658	658	659	662	661	662	662	661	660	659	670	670	671	660	650	640	638	640	650	661	658	59 3
	23	664	658	658	658	659	660	661	662	660	661	660	659	658	660	662	668	670	673	660	656	655	658	657	650	660	59 12
	24	650	657	655	657	660	660	660	660	660	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	25	—	—	—	—	—	—	—	—	—	661	661	658	655	658	663	670	671	668	644	630	620	629	654	660	655	58 51
	26	664	665	663	669	668	668	671	670	670	671	670	669	668	670	672	677	671	670	660	650	641	643	647	656	664	59 28
	27	658	660	667	664	662	667	669	668	670	671	670	667	664	664	675	680	688	680	665	650	644	657	663	668	666	59 36
	28	668	669	670	668	669	669	677	676	678	677	675	673	670	672	680	690	688	682	668	652	647	645	652	660	670	59 52
	29	664	669	670	670	670	669	668	670	672	672	670	670	670	668	679	685	690	690	684	659	650	648	664	675	671	59 56
	30	678	677	670	672	679	672	677	678	675	674	672	671	670	670	680	688	688	680	670	657	648	649	658	667	672	1 0 0
Monthly Means..	1664	1663	1662	1662	1663	1663	1664	1665	1664	1666	1665	1664	1663	1663	1667	1672	1674	1672	1663	1654	1649	1650	1658	1664	1663	—	
Declination.....	59 28	59 24	59 20	59 20	59 24	59 24	59 28	59 32	59 28	59 36	59 32	59 28	59 24	59 24	59 40	60 0	60 8	60 0	59 24	58 47	58 27	58 31	59 3	59 28	.....	0° 59' 24"	
Mean Hourly Variations from Monthly Mean..	4	0	-4	-4	0	0	4	8	4	12	8	4	0	0	16	36	44	36	0	-37	-57	-53	-21	4	—	—	
APRIL 1855. Declination Magnetometer.	March 31	1675	1675	1669	1663	1669	1669	1671	1673	1672	1.1	—	—	—	—	—	—	—	—	—	—	—	—	—	1676	1° 0' 16"	
	1	—	—	—	—	—	—	—	—	—	1673	1672	1671	1670	1670	1682	1700	1718	1710	1689	1665	1650	1653	1677	1690	674	0 8
	2	697	685	678	674	676	680	675	680	677	679	678	676	674	680	690	698	688	673	659	640	640	648	662	672	678	0 24
	3	676	684	680	674	672	675	677	679	677	680	681	680	680	680	690	709	718	700	680	652	647	640	663	673	679	0 28
	4	680	677	672	672	673	682	687	690	687	689	689	688	688	692	708	708	683	670	652	650	650	652	678	690	682	0 40
	5	690	690	685	682	681	682	680	683	688	689	687	685	684	685	700	706	705	698	675	648	640	655	670	677	675	0 12
	6	680	678	674	678	673	681																				

Zero 1497.

* The numbers in these Columns are not observed but interpolated, for the sake of obtaining the daily Means. The small figures heading them are the corrections of interpolations.

$$a \left(1 + \frac{H}{F}\right) = 4.030 \times 1.00060 = 4.0324$$

$$\rho = 41^{\circ} 8' 27'' + 7^{\circ} 6' 0'' = 0^{\circ} 48' 14.2'' \text{ East of North.}$$

Zero 1497.

DECLINATION MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Daily Means.	Absolute Declination East of North.	
Madras Mean Time.	P.M. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41			
SEPTEMBER 1855. Declination Magnetometer.										0.4 *		0.0 *															Arc.
	1	1660	1660	1654	1652	1651	1650	1650	1658	1660	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1652	0 58 39
	2	—	—	—	—	—	—	—	—	—	1660	1660	1660	1660	1667	1682	1687	1678	1656	1634	1619	1610	1618	1624	1646	660	59 12
	3	661	653	652	651	653	664	660	660	660	661	662	662	662	670	690	690	684	670	659	640	628	632	650	670	661	59 16
	4	681	670	660	654	659	662	666	668	670	671	672	671	670	670	680	678	670	660	639	628	629	629	638	660	670	59 52
	5	678	670	662	662	659	660	663	665	670	671	672	671	670	675	700	708	699	679	665	650	642	650	662	675	662	59 20
	6	676	660	655	651	652	660	663	665	670	670	670	669	668	674	700	716	703	670	638	621	618	630	640	659	662	58 59
	7	670	660	654	656	660	664	664	670	661	661	660	664	669	674	690	692	679	652	630	613	608	621	637	659	657	
	8	665	660	648	651	658	661	662	668	670	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9	—	—	—	—	—	—	—	—	—	672	673	677	680	688	715	707	667	642	625	620	618	648	667	688	664	59 28
	10	690	678	671	670	672	672	673	674	680	681	682	681	680	690	720	720	703	662	635	621	615	622	645	670	671	59 56
	11	680	673	664	679	682	680	681	680	683	685	687	689	692	702	720	715	690	659	630	608	612	637	656	672	673	1 0 4
	12	680	677	671	671	674	685	683	678	682	685	687	687	687	695	715	720	709	686	643	630	636	647	670	683	678	0 24
	13	690	685	677	676	675	677	680	683	683	683	682	684	685	694	713	720	700	679	636	610	612	614	638	658	672	0 0
	14	670	674	670	670	672	673	675	679	682	681	680	681	682	690	710	720	718	700	672	650	641	658	678	692	680	0 32
	15	698	685	671	669	668	670	672	676	682	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	16	—	—	—	—	—	—	—	—	—	680	678	679	680	687	710	714	703	684	666	650	640	645	670	690	678	0 24
	17	692	680	674	675	672	670	670	672	675	677	678	678	678	687	710	710	690	670	644	620	625	632	646	662	670	0 59 52
	18	672	678	673	672	672	676	681	682	685	688	690	690	690	700	720	730	715	690	662	632	630	640	652	670	679	1 0 28
	19	680	680	672	670	673	674	674	677	680	683	685	690	695	698	720	721	703	681	665	649	650	658	672	683	681	0 36
	20	688	676	675	670	671	673	674	679	680	680	680	680	680	688	705	714	699	675	658	652	653	660	670	683	678	0 24
	21	690	682	684	685	690	685	683	681	681	682	682	686	690	700	718	710	688	660	642	635	640	646	670	680	679	0 28
	22	682	680	673	673	675	680	680	682	682	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	23	—	—	—	—	—	—	—	—	—	682	682	681	680	688	708	720	710	698	674	652	642	660	680	691	681	0 36
	24	688	675	677	680	682	685	684	687	687	687	687	686	686	685	722	730	722	704	685	670	660	668	680	699	688	1 4
	25	695	678	679	680	685	687	686	685	683	683	682	683	684	690	710	713	710	698	660	654	659	661	683	690	684	0 48
	26	688	677	676	680	680	682	683	687	690	691	692	691	690	695	712	730	719	687	670	651	650	658	673	680	685	0 52
	27	687	684	680	681	680	680	675	675	682	681	680	681	682	682	708	711	710	700	689	680	672	682	690	705	687	1 0
	28	710	702	695	691	689	682	682	682	685	684	682	681	680	685	702	710	695	678	672	660	660	670	692	707	687	1 0
	29	702	690	687	690	684	683	685	682	680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	684	688	689	690	697	710	720	719	702	690	670	660	670	681	684	689	1 8
Monthly Means..	1683	1675	1670	1670	1672	1673	1674	1676	1678	1679	1679	1680	1680	1687	1708	1712	1699	1678	1655	1639	1636	1646	1663	1678	1675		
Declination.....	60 44	60 12	59 52	59 52	60 0	60 4	60 8	60 16	60 24	60 28	60 28	60 32	60 32	61 0	62 25	62 41	61 49	60 24	58 51	57 47	57 35	58 15	59 24	60 24	.....	1 0 12	
Mean Hourly Variations from Monthly Mean.	32	0	-20	-20	-12	-8	-4	4	12	16	16	20	20	48	133	149	97	12	-81	-145	-157	-117	-48	12			
OCTOBER 1855. Declination Magnetometer.										0.1 *		-0.2 *															
	1	1692	1690	1688	1687	1686	1685	1684	1690	1685	1687	1688	1689	1690	1693	1700	1700	1695	1692	1675	1660	1659	1660	1679	1687	1685	1 0 52
	2	684	679	677	679	675	678	680	678	680	680	680	680	680	694	700	688	679									

$$a \left(1 + \frac{H}{F} \right) = 4.030 \times 1.00060 = 4.0324$$

$$\rho = 41^{\circ} 8' 2'' + 7' 6'' = 0^{\circ} 48' 14.2'' \text{ East of North.}$$

Zero 1497.

DECLINATION MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Daily Means.	Absolute De- clination East of North.	
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.			
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41			
NOVEMBER 1855. Declination Magnetometer.										0.4 *		-0.4 *														Arc.	
	1	1712	1710	1715	1710	1718	1720	1715	1726	1725	1720	1715	1713	1712	1711	1713	1720	1720	1718	1712	1710	1713	1725	1720	1721	1716	1 2 57
	2	720	720	720	720	722	722	722	726	718	717	715	708	702	702	707	714	719	724	719	714	722	730	728	721	718	3 5
	3	715	712	711	714	712	712	714	710	712																	
	4										710	708	709	710	705	704	710	718	710	705	700	707	715	720	727	711	2 37
	5	720	717	720	721	717	718	717	716	722	722	722	719	716	712	712	730	736	723	708	700	704	715	720	720	718	3 5
	6	717	717	716	720	720	718	719	718	720	719	718	715	713	710	710	710	705	700	700	701	708	713	716	714	713	2 45
	7	720	717	715	715	713	717	715	713	715	712	709	704	700	698	697	697	700	695	690	692	698	700	710	708	706	2 17
	8	703	702	700	706	703	702	702	701	707	706	704	702	700	704	695	698	702	695	689	690	700	708	710	708	702	2 1
	9	708	704	700	702	700	700	700	700	700	700	700	699	698	692	695	698	702	697	690	690	695	705	715	712	700	1 53
	10	710	702	700	695	700	701	701	700	699																	
	11										701	702	701	700	701	700	708	710	701	672	679	692	700	708	713	700	1 53
	12	713	710	709	704	703	708	708	707	703	706	708	705	702	708	700	710	715	706	690	680	685	699	708	710	704	2 9
	13	708	704	706	709	708	709	709	707	705	706	706	703	700	702	702	712	720	703	690	693	700	708	710	710	705	2 13
	14	710	709	708	706	709	709	705	702	702	701	700	701	703	698	698	702	708	700	694	683	690	700	708	717	703	2 5
	15	710	708	709	707	705	704	707	704	703	702	700	698	696	695	692	704	712	718	720	717	712	710	687	675	704	2 9
	16	670	666	659	658	663	663	664	665	668	664	660	655	650	652	640	642	648	655	640	638	643	650	653	653	655	0 58 51
	17	662	662	658	659	659	655	654	650	650																	
	18										650	650	648	646	645	648	650	659	657	650	648	650	653	662	663	654	58 47
	19	655	660	660	660	657	654	653	653	652	651	650	648	647	650	640	660	672	660	650	646	655	663	665	660	655	58 51
	20	650	647	650	650	652	652	650	650	648	645	642	636	630	626	632	638	640	635	631	635	640	644	648	641	642	57 59
	21	647	648	655	650	650	651	652	651	658	654	650	645	640	635	638	640	646	660	660	654	660	650	652	657	650	58 31
	22	655	650	652	650	650	650	649	645	642	642	641	640	640	640	640	642	640	630	617	614	627	643	650	650	642	57 59
	23	654	648	653	652	652	648	648	644	644	644	643	638	634	630	637	635	640	650	638	638	650	662	666	665	646	58 15
	24	660	655	655	653	650	650	650	650	650																	
	25										645	640	641	642	643	640	650	646	642	643	645	650	653	657	657	649	58 27
	26	650	650	650	645	648	643	648	645	643	642	640	640	640	638	635	630	632	626	620	623	630	630	636	640	639	57 47
	27	640	645	641	643	642	640	644	642	642	644	646	643	640	640	635	632	634	630	632	639	650	658	668	670	643	58 3
	28	664	658	659	659	657	652	650	650	650	650	650	646	643	640	638	637	632	635	630	635	652	660	671	668	649	58 27
	29	660	660	660	661	652	655	655	653	662	661	660	652	645	642	638	640	640	645	650	643	642	653	660	660	652	58 39
	30	663	659	662	668	660	660	660	660	660	660	659	660	662	661	668	671	675	675	672	672	682	680	680	683	667	59 40
Monthly Means		1684	1682	1682	1682	1682	1681	1681	1680	1681	1680	1678	1676	1674	1672	1671	1676	1680	1677	1670	1668	1675	1682	1686	1686	1679	
Declination.....		60 48	60 40	60 40	60 40	60 40	60 36	60 36	60 32	60 36	60 32	60 24	60 16	60 8	60 0	59 56	60 16	60 32	60 20	59 52	59 44	60 12	60 40	60 56	60 56	.....	1 0 28
Mean Hourly Variations from Monthly Mean.		20	12	12	12	12	8	8	4	8	4	-4	-12	-20	-28	-32	-12	4	-8	-36	-44	-16	12	28	28		
DECEMBER 1855. Declination Magnetometer.										0.2 *		0.4 *															Arc.
	1	1688	1687	1689	1684	1685	1681	1680	1680	1680																1679	1 0 28
	2										1679	1678	1678	1677	1675	1672	1668	1665	1667	1662	1670	1680	1693	1693	1690	1679	1 0 28
	3	683	685	683	682	680	680	680	678	682	682	682	676	670	670	670	662	672	670	670	680	692	694	697	691	680	0 32
	4	687	690	683	691	689	683	686	685	682	681	680	678	675	670	672	678	690	698	698	682	692	701	700	701	686	0 56
	5	697	692	691	691	690	688	690	690	684	682	680	680	680	682	680	680	680	680	678	676	695	700	690	689	686	0 56
	6	682	693	687	689	685	690	691	690	684	682	680	680	680	680	680	682	682	680	672	677	692	705	700	690	686	0 56
	7	686	686	690	689	686	684	683	684	690	688	685	683	680	680	675	<										

Correction for 1° Fahr. = $\frac{1}{3.396}$ Ditto to Therm. = $-\frac{1}{0.5}$

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15$$

Zero at Temperature $88.8 = 1497$.Ditto reduced to $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	$1+\frac{\Delta X}{X}$	
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
JANUARY 1855. Horizontal Force Magnetometer.										-0.2	-0.2																		
	1	678	670	665	665	665	666	667	650	645	642	640	637	635	624	610	610	600	570	547	532	530	609	650	669	628	75	703	1.004231
	2	687	714	698	687	695	688	708	714	710	700	690	678	667	655	644	630	602	582	560	550	545	562	588	627	649	54	703	4231
	3	640	632	638	625	650	655	663	680	685	681	677	673	670	660	650	635	595	554	573	597	648	698	702	647	46	693	4314	
	4	704	698	697	692	697	698	698	697	695	688	682	676	670	674	672	665	650	612	575	540	562	610	650	693	662	29	691	4331
	5	678	679	690	720	730	740	748	709	688	698	708	690	673	659	650	640	633	638	622	587	550	577	625	692	668	24	692	4322
	6	701	680	690	710	720	769	766	740	710																			
	7																												
	8	750	755	748	742	740	740	734	734	733	744	755	742	730	710	715	719	700	679	650	600	566	580	645	697	704	-20	684	4388
	9	740	750	751	737	719	718	730	730	720	716	713	706	700	690	678	662	629	592	562	559	609	630	682	710	685	-25	660	4587
	10	721	727	721	730	741	750	745	720	738	727	717	718	720	713	720	718	700	651	640	615	626	655	680	718	705	-22	683	4396
	11	738	750	758	760	751	743	750	695	680	691	703	692	682	693	700	682	674	671	692	697	661	675	707	722	707	-22	685	4380
	12	740	785	770	761	763	759	760	785	765	751	738	719	700	669	685	700	672	650	645	630	640	665	690	723	715	-25	690	4339
	13	770	774	739	780	763	754	753	754	756																			
	14																												
	15	702	722	740	729	732	737	738	726	715	707	700	684	668	670	645	608	582	572	554	560	590	626	653	686	669	27	696	4289
	16	692	680	680	670	673	671	681	680	680	676	673	676	680	660	635	610	589	580	582	597	600	650	681	697	654	37	691	4331
	17	688	677	681	688	689	711	711	700	690	691	692	686	681	678	640	615	600	580	563	570	578	600	630	660	654	16	670	4504
	18	697	700	715	720	700	713	707	780	704	697	690	684	679	670	665	660	660	652	632	634	649	650	647	660	682	7	689	4347
	19	681	690	690	694	700	702	710	717	712	711	710	706	702	690	672	643	627	618	620	608	609	630	628	650	672	-7	665	4546
	20	666	681	680	704	713	711	712	724	718																			
	21																												
	22	811	804	792	806	840	810	796	795	748	739	730	710	690	678	663	640	605	584	559	534	530	553	592	665	695	-13	677	4446
	23	680	685	694	700	704	700	698	700	692	683	675	667	660	650	645	640	622	598	560	530	540	557	592	633	646	22	668	4521
	24	670	675	680	681	672	660	663	665	658	654	650	647	645	640	640	680	694	660	700	665	623	653	668	704	665	38	703	4231
	25	713	714	713	724	725	708	737	710	695	689	684	677	670	653	630	602	595	590	582	570	594	610	620	643	660	48	708	4190
	26	672	700	703	701	681	669	655	652	672	664	657	644	632	620	607	590	560	558	559	556	570	640	652	686	637	77	714	4140
	27	735	721	691	681	674	690	690	698	640																			
	28																												
	29	736	760	728	731	672	697	710	718	660	671	683	681	679	675	652	655	645	630	618	609	623	682	713	630	682	38	720	4091
	30	745	750	746	730	714	699	700	703	698	694	690	685	680	677	670	660	662	640	602	608	627	690	667	657	683	15	698	4273
	31	670	720	770	828	854	810	802	761	730	733	737	723	710	702	680	663	626	660	665	659	668	689	691	700	719	21	740	3925
Monthly Means..	708	715	714	718	718	717	720	716	701	698	695	687	680	671	661	650	631	615	601	592	599	631	659	691	675				
Temp. Corrections	0	3	10	13	15	18	20	22	23	24	24	25	26	29	32	36	35	31	24	17	11	6	0	-2	.....	18			
Corrected Means.	708	718	724	731	733	735	740	738	724	722	719	712	706	700	693	686	666	646	625	609	610	637	659	689	.....	.....	693		
Mean Hourly Variations from Monthly Mean. = '00	-0124	-0206	-0256	-0314	-0331	-0248	-0389	-0372	-0256	-0239	-0215	-0157	-0108	-0058	0000	0058	0223	0389	0562	0694	0686	0463	0281	0033	.....	.....	.....	.....	1.004314
JANUARY 1855. Temperature of Horizontal Force Magnetometer.										*	*																		

Correction for 1° Faht. = $\frac{3.396}{\text{sec.}}$ Ditto to Therm. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15'$$

HORIZONTAL FORCE MAGNETOMETER.

Zero at Temperature $88.8 = 1497$.Ditto reduced to $80 = 1215$.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23						
Madras Mean Time.		P.M. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41	Means.	Temperature Corrections	Corrected Means.	$1+\frac{\Delta X}{X}$		
FEBRUARY 1855. Horizontal Force Magnetometer.										1.7				-1.9																	
		1	708	711	720	690	717	694	696	695	700	689	675	664	656	640	610	588	578	539	520	538	580	620	647	686	648	38	686	1.004371	
		2	690	695	689	693	689	694	692	690	685	674	660	649	641	639	632	590	590	570	549	539	558	592	630	652	641	47	688	4355	
		3	667	670	670	670	680	686	687	687	680																				
		4										690	697	675	657	663	657	643	618	587	580	568	545	570	616	643	646	36	682	4404	
		5	682	686	687	674	687	690	680	680	672	672	669	663	660	667	660	652	625	610	612	577	590	630	653	660	656	14	670	4504	
		6	670	690	700	702	701	710	710	706	700	699	695	691	690	688	679	660	622	570	555	550	570	621	660	670	663	-6	657	4611	
		7	683	681	680	680	672	680	690	676	670	667	660	656	656	650	640	635	598	557	520	530	562	603	637	585	636	4	640	4752	
		8	607	630	638	671	691	689	795	865	890	878	862	834	810	758	729	713	680	667	652	702	738	760	790	799	744	17	761	3752	
		9	788	768	761	760	771	780	789	788	757	751	742	738	737	729	715	690	662	640	617	600	643	700	721	732	724	26	750	3843	
		10	740	728	721	730	730	730	740	738	722																				
		11										718	710	701	695	680	662	630	625	618	613	624	600	611	642	667	682	23	705	4215	
		12	682	742	750	802	732	738	734	704	736	716	693	681	672	670	650	663	650	638	632	645	685	677	688	710	695	33	728	4025	
		13	720	731	747	769	769	739	728	719	713	713	710	698	690	673	656	636	590	542	490	480	530	610	669	685	667	30	697	4281	
		14	700	717	707	710	730	721	749	732	710	709	705	699	697	685	682	640	608	590	593	620	675	720	740	752	691	46	737	3950	
		15	729	710	713	716	714	710	700	698	688	697	703	692	685	678	650	605	552	510	500	511	584	649	700	718	659	36	695	4298	
		16	722	713	710	706	710	712	711	712	700	703	703	692	685	672	640	603	578	540	515	488	501	547	602	650	646	24	670	4504	
		17	681	709	716	732	752	728	735	700	708																				
		18										707	703	710	720	727	717	715	710	636	569	610	588	611	660	712	690	-13	677	4446	
		19	721	767	777	771	770	750	770	753	738	737	732	732	735	722	717	710	670	633	600	618	661	720	765	817	724	-29	695	4298	
		20	850	810	788	779	770	780	771	767	763	748	730	741	755	740	730	700	650	622	618	612	658	713	785	813	737	-54	683	4396	
		21	858	808	820	792	798	810	790	781	790	769	745	754	767	752	772	779	730	736	719	692	713	735	747	803	769	-61	708	4190	
		22	822	830	800	790	794	800	790	787	780	783	782	778	777	775	773	769	750	729	748	718	692	707	728	760	769	-76	693	4314	
		23	782	842	861	838	828	818	808	776	797	784	767	792	820	803	792	749	694	653	629	647	690	748	780	795	771	-80	691	4331	
		24	839	814	800	801	821	831	838	832	830																				
		25										812	790	781	775	770	760	744	699	668	650	665	686	742	792	831	774	-84	690	4339	
		26	838	822	818	800	813	790	773	779	790	798	802	796	793	785	763	730	700	666	640	660	705	750	798	803	767	-83	684	4388	
		27	820	879	898	870	839	822	822	822	805	800	792	778	767	742	708	664	598	542	570	620	715	777	792	830	761	-68	693	4314	
		28	815	831	807	838	885	822	802	832	780	783	783	770	760	748	737	700	658	617	620	607	679	748	855	837	763	-60	703	4231	
Monthly Means..		742	749	749	749	753	747	750	747	742	737	730	724	721	711	697	675	643	612	596	601	631	673	712	734	705					
Temp. Corrections		-31	-27	-20	-16	-14	-11	-7	-6	-5	-4	-5	-2	-1	4	9	13	7	2	-6	-12	-20	-25	-29	-33	.....	-10				
Corrected Means.		711	722	729	733	739	736	743	741	737	733	725	722	720	715	706	688	650	614	590	589	611	648	683	701	.....	.....	695			
Mean Hourly Variations from Monthly Mean.		-16	-27	-34	-38	-44	-41	-48	-46	-42	-38	-30	-27	-25	-20	-11	7	45	81	105	106	84	47	12	-6	.....	.....	.....	1.004298		
		-0133	-0223	-0281	-0314	-0374	-0239	-0397	-0381	-0348	-0314	-0248	-0223	-0206	-0165	-0091	0058	0372	0669	0867	0876	0694	0389	0100	-0050	.....	.....	.....			
FEBRUARY 1855. Temperature of Horizontal Force Magnetometer.		1	802	801	800	798	798	797	795	794	793	792	791	790	790	790	787	788	789	790	791	794	796	797	799	7938					
		2	799	798	795	794	792																								

Correction for 1° Faht. = 3.396

 $k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15'$ Zero at Temperature $88.8 = 1497$.

Ditto to Therm. = -0.5

Ditto reduced to $80^\circ = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Göttingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta X}{1+X}$
Madras Mean Time.		P.M. h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41				
MARCH 1855. Horizontal Force Magnetometer.	1	809	830	857	840	829	818	820	817	790	792	795	776	760	760	728	700	653	629	618	642	735	750	772	833	765	-60	705	1.004215
	2	804	799	836	788	788	798	797	796	786	791	796	779	765	763	750	695	650	632	645	670	707	754	810	822	759	-69	690	4339
	3	817	795	792	780	780	814	791	808	800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4	—	—	—	—	—	—	—	—	—	813	827	816	808	808	803	779	728	667	628	639	719	803	850	847	780	-95	685	4380
	5	828	835	812	810	809	799	790	800	800	799	798	802	810	798	780	739	665	599	534	541	589	660	740	797	747	-100	647	4694
	6	875	850	837	842	847	842	848	832	840	827	815	799	786	773	757	704	632	570	514	549	580	667	719	803	754	-93	661	4579
	7	840	818	801	806	799	794	793	789	780	769	758	750	746	737	735	706	660	599	562	575	622	677	702	717	731	-78	653	4644
	8	738	757	768	762	768	767	764	778	820	790	760	738	720	707	690	637	581	532	500	565	580	665	730	787	704	-70	634	4801
	9	782	818	845	889	921	942	900	868	830	821	812	786	764	760	784	770	755	688	678	695	730	788	830	842	804	-70	734	3975
	10	823	830	811	818	802	824	804	818	804	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	11	—	—	—	—	—	—	—	—	—	807	810	806	806	797	770	732	685	650	620	637	674	731	780	820	769	-87	682	4404
	12	832	879	982	960	1035	1021	958	978	933	911	890	860	833	890	898	918	878	823	854	837	850	880	905	927	905	-87	818	3281
	13	910	898	908	884	840	912	901	867	853	856	860	852	848	842	832	800	772	740	742	690	746	796	832	841	834	-79	755	3802
	14	850	855	850	859	849	848	850	858	853	846	840	843	850	830	809	754	697	669	659	715	786	838	850	837	812	-84	728	4025
	15	825	840	882	904	902	880	860	842	832	826	820	808	800	782	775	738	688	640	597	632	670	771	843	870	793	-87	606	5032
	16	860	830	832	820	826	848	850	856	860	840	820	810	804	801	795	750	689	622	569	570	599	700	736	782	770	-93	677	4446
	17	799	780	800	803	813	781	808	799	807	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	18	—	—	—	—	—	—	—	—	—	823	840	832	828	812	780	752	744	727	690	678	695	740	789	831	781	-94	687	4363
	19	878	860	890	848	871	861	835	789	830	806	782	789	799	770	752	734	678	620	600	672	700	820	865	890	789	-99	690	4339
	20	862	858	860	865	869	878	859	861	824	827	830	828	830	822	808	770	728	675	650	671	698	758	820	850	804	-114	690	4339
	21	864	870	858	858	853	851	853	855	842	855	868	874	883	866	841	811	738	679	667	648	700	747	815	840	814	-132	682	4404
	22	849	860	869	880	872	850	888	863	849	849	850	843	840	830	824	798	740	698	666	654	683	720	782	830	808	-146	662	4570
	23	858	862	843	838	847	858	836	820	850	839	828	822	820	818	808	770	728	669	652	636	675	736	790	826	793	-131	662	4570
	24	852	860	861	906	895	862	860	834	840	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	25	—	—	—	—	—	—	—	—	—	833	827	817	810	805	792	760	683	632	607	615	677	754	802	890	795	-126	669	4573
	26	897	878	890	878	855	839	873	828	850	842	835	827	822	820	810	778	739	702	704	723	777	824	841	857	820	-148	672	4487
	27	860	848	838	838	836	825	827	814	800	798	796	781	770	785	762	740	708	663	637	680	741	775	800	837	782	-148	634	4801
	28	865	871	846	839	842	869	862	848	840	836	832	832	837	822	797	777	709	665	640	664	715	769	815	858	802	-161	641	4744
	29	852	850	843	840	847	857	846	845	850	848	847	842	840	836	817	780	728	660	654	673	710	750	810	841	803	-177	626	4867
	30	862	857	906	892	862	904	892	878	880	875	870	857	847	840	830	785	735	682	630	651	710	770	841	858	821	-180	641	4744
Monthly Means..		842	842	851	848	848	852	845	836	832	828	823	814	809	803	789	757	707	659	635	651	695	755	803	836	790			
Temp. Corrections..		-132	-129	-121	-116	-112	-109	-108	-105	-101	-99	-99	-95	-92	-89	-83	-83	-88	-95	-105	-113	-120	-128	-134	-137	.....	-108		
Corrected Means..		710	713	730	732	736	743	737	731	731	729	724	719	717	714	706	674	619	564	530	538	575	627	669	699	.....		682	
Mean Hourly Variations from Monthly Mean.		-28	-31	-48	-50	-54	-61	-55	-49	-49	-47	-42	-37	-35	-32	-24	8	63	118	152	144	107	55	13	-17	.....			1.004404
MARCH																													

Correction for $\frac{1}{2}$ Faht. = 3.396° Zero. at Temperature 88.81497° Ditto to Therm. = -0.5°

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^{\circ} 15'$$

Ditto reduced to $80^{\circ} = 1215.$

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	1+ $\frac{\Delta X}{X}$	
Madras Mean Time.		P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					h.m.
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
APRIL 1855. Horizontal Force Magnetometer.	March 31	862	845	850	854	862	869	864	861	870	0.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	1	—	—	—	—	—	—	—	—	—	865	860	854	850	849	837	796	729	660	617	642	710	793	862	892	815	-191	624	1.004884	
	2	901	888	878	880	878	872	850	818	790	802	813	818	825	842	825	785	708	633	608	660	710	788	860	881	805	-200	605	5041	
	3	890	892	894	886	881	872	850	880	837	848	858	843	830	835	828	790	753	700	708	720	866	940	1010	1045	852	-202	650	4669	
	4	1137	1159	1095	1045	1049	1060	1037	1042	1008	993	978	958	940	923	935	965	900	882	890	930	949	952	999	1050	995	-201	794	3479	
	5	1074	1013	1001	992	990	993	962	948	938	923	907	911	917	910	895	859	808	804	775	850	882	950	992	1020	930	-196	734	3975	
	6	1035	962	961	968	968	978	978	974	970	961	952	935	919	918	910	880	843	834	800	834	855	914	950	965	928	-201	727	4033	
	7	950	927	925	928	922	910	934	919	902	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9	921	1002	983	960	952	947	920	909	887	891	895	889	884	880	891	845	785	750	737	800	851	874	886	940	887	-172	715	4132	
	10	987	970	963	950	970	938	891	902	910	901	892	887	884	868	850	820	762	745	749	765	829	870	881	877	878	-169	709	4182	
	11	880	897	902	900	897	890	892	884	887	879	870	867	866	842	830	793	740	698	702	708	750	780	818	850	834	-164	670	4504	
	12	877	881	910	964	962	970	979	953	910	908	905	917	930	941	928	894	863	890	832	822	864	899	906	960	911	-181	730	4008	
	13	1002	960	968	953	967	949	943	958	950	941	932	918	905	882	858	830	782	740	740	786	860	890	952	974	902	-201	701	4248	
	14	968	950	968	933	932	920	907	906	895	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	15	—	—	—	—	—	—	—	—	—	—	919	943	928	915	909	900	873	832	789	780	782	840	899	970	1067	905	-217	688	4355
	16	1040	1006	972	969	962	959	956	957	928	929	930	928	927	900	876	842	810	770	763	802	816	868	915	950	907	-214	693	4314	
	17	942	938	968	959	971	953	930	905	948	935	921	910	900	898	875	845	788	710	690	740	791	863	957	988	889	-203	686	4371	
	18	960	951	1003	1008	982	982	939	944	940	935	930	928	927	930	932	925	880	790	771	766	788	860	948	980	917	-213	704	4223	
	19	972	952	956	972	990	1002	980	970	960	959	958	947	937	930	918	904	850	799	772	799	850	892	958	1000	926	-246	680	4421	
	20	1010	995	973	972	962	950	940	897	942	946	950	936	924	919	942	940	902	852	829	824	860	927	972	1000	932	-262	670	4504	
	21	992	1000	989	987	994	990	964	950	938	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	23	952	960	949	950	953	958	961	958	926	928	930	928	928	928	922	900	863	820	818	830	881	920	947	970	920	-258	662	4570	
	24	975	941	959	956	950	947	948	937	933	926	918	913	909	905	920	900	844	818	762	772	810	854	902	919	901	-258	643	4727	
	25	930	953	954	946	930	934	931	922	920	908	895	887	880	875	880	860	820	790	768	779	825	865	910	941	888	-251	637	4776	
	26	950	937	929	924	920	919	908	911	905	897	888	883	880	875	865	830	773	740	720	740	793	843	910	935	870	-256	614	4967	
	27	948	951	949	957	962	958	949	941	929	930	930	920	911	927	902	877	840	795	782	785	810	853	898	933	902	-277	625	4876	
	28	940	939	929	920	923	921	928	924	920	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	29	—	—	—	—	—	—	—	—	—	—	934	947	938	930	912	895	862	800	772	743	789	841	900	955	982	898	-262	636	4784
	30	990	1004	988	973	993	990	984	964	923	953	982	962	944	962	950	890	835	797	812	906	960	1033	1100	1117	959	-257	702	4239	
Monthly Means..		965	957	954	950	951	947	936	928	918	918	918	910	904	900	892	864	814	774	757	783	831	881	932	964	898				
Temp. Corrections		-247	-241	-233	-228	-225	-221	-215	-211	-207	-205	-205	-201	-199	-194	-191	-194	-199	-208	-220	-232	-243	-249	-252	-252	.....	-220			
Corrected Means..		718	716	721	722	726	726	721	717	711	713	713	709	705	706	701	670	615	566	537	551	588	632	680	712					

● The numbers in these Columns are not observed but interpolated, for the sake of obtaining the daily Means. The small figures heading them are the corrections of interpolations.

Correction for 1 Faht. = $\frac{\text{sec.}}{3.396}$ Ditto to Therm. = $-\frac{0.5}{1}$

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15'$$

Zero. at Temperature $88.8 = 1497$.Ditto reduced to $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta X}{1 + \frac{\Delta X}{X}}$	
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
JUNE 1855. Horizontal Force Magnetometer.	1	1132	1125	1120	1093	1098	1097	1099	1090	1085	1073	1060	1047	1035	1050	1021	995	969	950	955	980	1042	1075	1110	1108	1059	-415	644	1.004719
	2	1087	1088	1080	1073	1060	1058	1051	1053	1050																			
	3										1042	1032	1031	1031	1027	1020	1010	960	959	933	932	965	999	1055	1098	1029	-410	619	4926
	4	1146	1140	1114	1112	1118	1097	1087	1072	1060	1053	1045	1046	1048	1043	1029	986	962	935	930	953	990	1027	1069	1105	1049	-423	626	4867
	5	1132	1143	1080	1110	1093	1092	1080	1057	1072	1065	1056	1057	1060	1054	1030	1011	988	960	952	955	975	1005	1038	1074	1047	-415	632	4817
	6	1087	1075	1059	1042	1048	1060	1021	1020	1030	1039	1047	1023	1000	992	975	964	968	954	962	937	1010	1048	1135	1148	1027	-385	642	4735
	7	1128	1097	1100	1089	1054	1030	1034	1028	1030	1027	1022	1010	1000	1006	985	962	928	887	893	968	982	1008	1050	1096	1017	-355	662	4570
	8	1090	1082	1107	1063	1045	1025	1017	1005	1010	996	981	985	990	1008	992	960	950	908	920	962	1000	1015	1020	1055	1008	-340	668	4521
	9	1072	1020	1018	1021	1012	1011	1006	997	1010																			
	10										986	960	953	948	920	903	900	969	900	850	915	1007	1022	1035	1043	978	-328	650	4669
	11	1050	1072	1031	1014	1010	1012	1015	1002	950	949	947	966	987	960	940	930	918	890	892	932	965	980	1015	1037	978	-319	659	4595
	12	1032	1015	998	992	997	1000	988	980	970	966	960	960	962	938	941	918	890	908	888	870	892	917	957	968	954	-295	659	4595
	13	990	984	990	1000	989	1003	990	990	983	981	977	968	960	942	940	921	890	852	825	836	858	900	943	980	945	-285	660	4587
	14	1002	1008	982	980	978	963	962	965	940	936	930	925	922	905	879	842	790	750	761	807	862	920	950	975	914	-283	631	4826
	15	972	959	948	946	953	948	942	943	938	930	920	914	910	910	892	870	850	810	797	800	830	901	965	1022	911	-294	617	4942
	16	1050	1039	1010	1005	1000	998	990	981	972																			
	17										951	928	921	916	910	900	872	826	839	790	727	765	810	862	910	915	-300	615	4959
	18	940	948	938	935	930	930	869	890	910	909	907	903	900	889	861	832	790	750	748	760	787	822	880	923	873	-281	592	5148
	19	942	945	960	956	945	942	938	922	912	911	908	904	902	900	879	858	821	784	740	752	795	854	918	957	889	-289	600	5082
	20	958	950	940	935	930	930	922	920	920	920	918	928	940	927	904	892	876	824	828	820	840	870	901	941	906	-308	598	5099
	21	945	980	973	980	975	972	969	960	965	962	957	942	928	919	892	880	860	830	815	830	895	927	958	962	928	-323	605	5041
	22	986	977	962	909	900	973	1020	1047	1060	1053	1044	1025	1008	990	942	969	890	875	932	943	922	948	958	975	971	-320	651	4661
	23	988	990	980	970	964	972	969	974	970																			
	24										966	960	960	962	970	940	910	900	872	860	870	900	942	978	1005	949	-294	655	4628
	25	1017	1018	1008	1001	998	1001	980	988	970	976	980	980	982	970	959	931	917	890	872	878	900	953	998	1029	966	-307	659	4595
	26	1040	1035	1040	1038	1020	993	1001	1000	984	978	971	971	973	965	940	920	890	868	850	839	893	929	988	1008	964	-332	632	4817
	27	1022	1002	986	980	970	968	960	971	960	964	967	964	962	960	950	925	866	812	800	830	912	978	1022	1037	949	-326	623	4892
	28	1035	1048	1041	1028	1028	1012	1009	1000	985	983	980	966	954	957	960	930	919	902	879	882	850	833	850	872	954	-316	638	4768
	29	930	965	972	966	989	992	985	978	960	950	938	942	948	940	910	889	919	863	820	827	900	983	1010	998	941	-283	658	4603
	30																												
Monthly Means..	1031	1028	1017	1010	1004	1003	996	993	988	983	976	972	969	962	943	923	900	871	860	872	909	947	987	1013	965				
Temp. Corrections	-364	-357	-346	-341	-337	-334	-330	-326	-323	-319	-317	-312	-308	-301	-295	-297	-301	-309	-321	-335	-346	-355	-361	-362	.....	-329			
Corrected Means.	667	671	671	669	667	669	666	667	665	664	659	660	661	661	648	626	599	562	539	537	563	592	626	651	.....	.....	636		
Mean Hourly Variations from Monthly Mean	-31	-35	-35	-33	-31	-33	-30	-31	-29	-28	-23	-24	-25	-25	-12	10	37	74	97	99									

Correction for 1st Faht. = $\frac{3.396}{\text{sec.}}$ Ditto to Therm. = $-\frac{0.5}{\text{°}}$

$$k. = a. \cotan. v. = 0.0003139 \times \cotan. 75^{\circ} 15'$$

Zero. at Temperature $88.8 = 1497$.Ditto reduced to $80^{\circ} = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Temperature Corrections	Corrected Means.	$\frac{\Delta X}{1+X}$	
Madras Mean Time.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.			
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
JULY 1855. Horizontal Force Magnetometer.	June 30	985	950	975	1000	990	1002	974	950	950	2.1 *	-0.2 *																	
	1	—	—	—	—	—	—	—	—	—	965	975	962	950	946	932	920	909	860	824	822	870	930	970	992	941	-285	656	1.004619
	2	918	960	1005	1006	1010	998	1002	1003	990	983	972	971	970	938	882	900	880	868	859	910	940	980	1002	1040	958	-333	625	4876
	3	1052	1048	1040	1037	1010	1008	1006	1007	980	985	985	980	975	980	970	948	930	892	908	877	910	940	992	1031	979	-325	654	4636
	4	1055	1061	995	1021	1012	991	982	992	1005	1008	1006	1010	1014	990	960	940	927	889	845	908	970	1020	1031	1073	988	-323	665	4546
	5	1060	1052	1076	1056	1044	1016	1019	1023	990	976	957	974	992	935	960	938	923	910	910	900	916	950	980	1008	982	-321	661	4579
	6	1029	1038	1016	1002	1010	1015	1015	975	978	967	952	944	936	930	912	895	880	854	840	845	863	880	912	950	943	-301	642	4735
	7	982	978	970	960	948	949	948	948	920	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	8	—	—	—	—	—	—	—	—	—	943	962	961	960	950	936	918	900	866	824	860	899	942	968	992	937	-298	639	4760
	9	990	990	994	990	950	954	950	940	933	930	922	926	930	920	915	907	905	857	849	869	880	892	914	940	927	-300	627	4859
	10	953	967	963	971	952	932	950	965	963	954	940	933	927	923	910	895	869	892	872	878	882	899	967	998	931	-308	623	4892
	11	949	953	949	950	948	947	947	948	948	950	948	949	950	950	948	949	948	947	949	948	950	942	951	948	949	-325	624	4884
	12	940	951	947	950	950	948	950	958	998	975	948	951	955	948	946	948	949	948	950	948	947	948	947	947	952	-325	627	4859
	13	947	970	982	989	989	975	920	920	918	922	922	923	924	930	913	902	868	840	840	850	860	908	940	982	922	-326	596	5115
	14	991	970	972	970	980	986	943	960	968	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	15	—	—	—	—	—	—	—	—	—	946	920	918	917	908	900	898	842	819	782	767	770	790	843	899	902	-312	590	5165
	16	932	940	930	922	923	930	913	960	920	912	900	900	900	891	873	835	796	762	729	732	775	822	885	940	876	-298	578	5264
	17	961	950	938	927	916	900	907	906	892	890	883	876	870	862	845	820	777	735	679	660	690	748	821	858	846	-271	575	5289
	18	895	910	905	897	889	880	878	865	862	867	868	868	868	870	844	789	750	694	599	614	649	668	826	910	819	-267	552	5479
	19	940	920	856	858	850	866	898	915	960	1030	1095	1067	1040	1060	1012	998	1017	946	940	997	1079	1098	1104	1141	987	-281	706	4206
	20	1143	1167	1151	1132	1087	1065	1042	998	945	959	968	979	990	995	942	952	932	880	870	860	875	907	945	1010	991	-284	707	4198
	21	1060	1054	1052	1020	1028	992	978	899	902	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	22	—	—	—	—	—	—	—	—	—	918	930	924	919	908	890	880	859	830	823	830	887	918	940	965	934	-238	696	4289
	23	985	970	960	964	960	970	944	945	940	932	920	917	915	900	880	868	848	828	820	818	840	870	901	921	909	-238	671	4496
	24	959	980	981	973	969	962	948	957	960	961	958	952	947	940	922	900	880	854	853	850	891	930	944	992	936	-272	664	4554
	25	1000	1000	993	993	997	998	988	970	960	972	980	971	963	952	925	910	882	888	885	888	883	926	963	1001	954	-297	657	4611
	26	1026	1012	990	993	980	1003	992	972	972	971	965	953	942	910	895	890	883	852	857	873	890	921	971	989	946	-294	652	4652
	27	992	990	1005	1002	973	970	959	970	960	965	965	958	952	945	927	910	856	825	820	810	841	857	933	972	932	-306	626	4867
	28	1000	983	960	952	975	965	962	960	920	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	29	—	—	—	—	—	—	—	—	—	950	975	977	980	949	956	930	889	848	840	850	882	990	1028	1043	948	-314	634	4801
	30	1050	1041	1010	1008	998	1008	1022	1005	990	993	992	976	960	938	944	888	893	830	818	848	890	930	960	1005	958	-319	639	4760
	31	1010	1020	1021	1001	1020	1025	1030	1015	993	986	974	952	930	927	925	894	863	835	828	850	880	939	992	1010	955	-307	648	4686
Monthly Means...		992	994	987	983	976	972	965	960	952	956	955	951	947	937	921	905	884	854	838	847	874	909	949	984	937			
Temp. Corrections		-333	-327	-319	-314	-310	-306	-302	-298	-294	-291	-288	-284	-280	-272	-265	-264	-269	-275	-284									

Correction for 1° Faht. = $\frac{\text{sed.}}{3.396}$

$$k. = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15'$$

Zero. at Temperature $88.8 = 1497$.Ditto to Therm. = -0.5 Ditto reduced to $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	1+ $\frac{\Delta X}{X}$		
Madras Mean Time.	P.M. h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41						
AUGUST 1855. Horizontal Force Magnetometer.	1	1008	1000	988	982	981	962	970	960	957	952	950	939	930	932	927	908	892	877	840	830	832	853	895	942	929	-301	628	1.004851	
	2	985	990	960	971	998	976	960	962	986	967	950	940	932	937	902	888	850	808	787	800	816	850	892	920	918	-290	628	4851	
	3	967	982	977	970	950	948	950	954	960	958	958	943	930	912	910	908	890	854	818	787	807	838	872	939	916	-296	620	4917	
	4	980	982	990	991	992	995	988	962	940	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5	—	—	—	—	—	—	—	—	—	—	940	942	939	938	931	924	915	880	868	862	855	860	900	911	948	935	-299	636	4784
	6	977	980	980	977	956	970	978	996	960	952	947	944	943	930	918	894	865	845	848	870	900	918	933	968	935	-305	630	4834	
	7	1000	1008	1005	999	991	982	979	970	960	953	948	943	940	932	918	902	875	848	842	835	832	851	898	947	932	-320	612	4983	
	8	983	992	990	986	980	972	969	968	900	922	947	939	932	918	902	891	852	804	772	775	820	861	910	950	914	-316	598	5099	
	9	962	960	950	955	944	940	933	928	930	931	935	933	932	933	915	888	835	777	755	798	838	875	920	963	905	-317	588	5182	
	10	980	970	961	965	967	962	960	950	939	938	940	932	925	912	895	888	822	790	782	797	810	850	908	962	909	-316	593	5140	
	11	970	983	1012	1030	1035	998	990	970	961	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	12	—	—	—	—	—	—	—	—	—	—	938	918	913	910	907	895	885	863	840	814	830	845	868	884	905	923	-304	619	4926
	13	910	917	912	928	928	911	912	918	918	907	898	892	887	885	888	870	842	800	770	764	809	857	850	862	876	876	-273	603	5057
	14	871	868	882	872	852	862	844	849	852	860	870	865	862	878	885	870	805	774	750	713	755	810	860	881	841	-249	592	5148	
	15	900	930	903	873	882	906	919	925	918	899	883	880	878	867	860	880	866	810	847	818	832	882	930	940	884	-238	646	4702	
	16	915	890	892	938	920	918	923	888	838	860	885	877	870	860	850	852	832	821	806	827	873	910	920	937	879	-225	654	4636	
	17	942	960	963	950	932	951	877	884	890	881	875	877	880	871	840	823	797	770	758	789	815	851	872	899	873	-236	637	4776	
	18	915	917	929	919	920	920	920	918	910	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	19	—	—	—	—	—	—	—	—	—	—	904	900	895	892	880	871	860	838	810	781	793	858	856	870	903	882	-246	636	4784
	20	930	952	941	963	982	948	947	920	910	919	930	920	912	900	900	908	871	858	867	860	857	870	920	967	915	-262	653	4644	
	21	950	942	949	944	937	877	950	928	930	923	918	913	910	900	880	868	852	853	828	852	893	915	930	929	907	-267	640	4752	
	22	939	945	957	948	951	937	920	890	892	895	900	899	900	890	888	870	833	823	817	829	855	874	910	933	896	-274	622	4900	
	23	955	963	969	967	960	950	930	913	910	892	877	863	850	840	820	772	773	860	882	902	914	943	930	910	898	-285	613	4975	
	24	913	927	938	958	960	950	940	922	916	912	910	900	892	880	870	850	812	792	824	839	886	939	940	930	900	-245	655	4628	
	25	927	920	917	917	916	910	916	910	903	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	26	—	—	—	—	—	—	—	—	—	—	895	890	887	885	890	870	839	795	773	782	830	862	887	918	904	881	-268	613	4975
	27	898	890	900	905	895	912	928	912	902	890	880	878	878	850	832	800	770	722	744	767	783	820	847	842	852	-257	595	5124	
	28	856	868	892	896	926	946	952	930	912	899	888	878	870	868	830	812	792	768	769	790	891	795	850	877	861	-245	616	4950	
	29	900	907	912	934	930	931	903	900	900	896	895	888	883	880	868	838	791	764	750	760	812	832	860	871	867	-286	581	5240	
	30	888	890	887	887	900	892	897	880	876	878	883	855	829	830	815	820	783	796	745	790	820	869	900	979	858	-275	583	5223	
	31	1034	1048	1080	1100	1135	1072	1057	1020	998	968	940	933	927	925	910	882	858	832	836	841	880	909	900	910	958	-285	673	4479	
Monthly Means..	943	947	949	953	953	944	941	931	921	916	913	906	901	894	881	866	835	812	803	813	839	870	897	923	898	—	—	—	—	
Temp. Corrections	-308	-304	-297	-292	-287	-283	-279	-275	-272	-269	-266	-262	-260	-255	-249	-248	-251	-257	-265	-276	-286	-295	-303	-307	—	-277	—	—	—	
Corrected Means..	635	643	652																											

Correction for 1 Faht. = 3.396^{scd.}

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15'$$

Zero. at Temperature $88.8 = 1497$.

Ditto to Therm. = -0.5

Ditto reduced to $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.	$\frac{\Delta X}{1+X}$	
Madras Mean Time.		P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.					h.m.
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
SEPTEMBER 1855. Horizontal Force Magnetometer.										1.3 *																				
	1	909	931	945	964	963	961	948	938	948																				
	2										921	891	885	882	873	853	818	786	742	764	794	872	910	950	980	893	-296	597	1.005107	
	3	978	972	978	972	980	958	969	967	966	945	922	908	898	880	848	832	817	808	820	848	900	907	910	943	914	-292	622	4900	
	4	960	935	920	917	926	910	928	929	930	926	920	913	910	879	862	833	817	797	784	800	814	852	880	910	885	-279	606	5032	
	5	930	928	932	940	930	910	912	915	900	898	893	888	886	877	882	867	819	789	778	809	845	896	900	900	884	-265	619	4926	
	6	918	883	880	888	886	893	888	884	882	877	870	863	860	855	842	820	792	773	773	798	842	879	890	898	860	-258	602	5065	
	7	855	847	871	892	917	910	890	894	890	886	880	868	860	855	828	802	776	765	733	768	803	873	930	916	855	-257	598	5099	
	8	908	923	904	892	938	942	940	959	930																				
	9										898	863	855	850	849	834	788	748	712	718	766	833	881	892	910	864	-241	623	4892	
	10	890	862	857	841	840	840	838	834	840	837	832	828	827	850	832	850	790	738	675	665	689	730	742	790	805	-217	588	5182	
	11	831	875	907	937	968	939	919	878	912	919	924	916	912	892	899	862	810	777	779	805	846	873	920	937	885	-221	664	4554	
	12	910	887	893	911	919	906	902	925	895	894	890	877	867	850	832	792	751	757	708	777	840	875	912	922	862	-233	629	4843	
	13	913	882	879	882	880	874	872	867	870	861	850	858	870	858	830	799	762	733	730	732	788	831	854	870	839	-225	614	4923	
	14	872	868	861	865	868	870	861	860	857	861	862	858	857	851	840	808	758	750	732	795	858	865	853	858	841	-210	631	4826	
	15	878	882	866	881	880	879	878	870	866																				
	16										872	875	871	870	869	868	847	790	755	778	830	892	900	910	902	863	-226	637	4776	
	17	900	895	899	898	898	892	887	875	890	881	870	860	853	850	868	840	829	790	762	782	835	842	856	892	860	-224	636	4784	
	18	900	892	889	892	892	880	880	879	890	882	872	868	867	858	850	847	800	762	748	778	825	865	915	922	861	-226	635	4793	
	19	906	892	882	880	905	920	889	872	870	876	880	873	870	870	850	834	782	750	742	785	859	878	900	888	861	-238	623	4892	
	20	900	902	912	899	904	914	918	911	912	912	910	898	890	885	871	840	798	778	750	766	810	873	897	912	873	-258	615	4959	
	21	927	910	940	942	940	965	917	904	895	890	882	879	880	863	890	892	862	833	875	893	892	915	920	920	901	-263	638	4768	
	22	913	902	919	930	935	920	920	914	910																				
	23										890	868	868	872	865	859	831	792	760	747	755	807	842	880	910	867	-261	606	5032	
	24	912	907	912	920	921	893	894	872	873	863	850	843	840	828	812	763	702	660	660	692	740	795	850	880	828	-224	604	5049	
	25	878	842	841	868	867	880	864	842	840	831	820	823	830	810	818	780	720	642	640	665	705	760	808	828	800	-183	617	4942	
	26	800	789	794	802	844	811	808	818	810	810	808	801	798	800	780	740	678	627	600	637	706	760	798	810	768	-176	592	5148	
	27	813	805	799	791	799	773	788	788	819	821	820	812	807	798	800	722	697	631	672	764	838	903	972	982	801	-192	609	5008	
	28	998	1017	949	937	924	852	899	897	880	880	878	862	850	830	828	820	768	742	770	772	850	888	948	920	873	-204	669	4513	
	29	898	890	917	890	895	888	890	878	870																				
30										854	835	831	830	828	819	802	763	720	697	705	759	788	810	827	828	-197	631	4826		
Monthly Means..		900	893	894	897	905	895	892	887	886	879	871	864	861	853	844	817	776	744	737	767	818	855	884	897	855				
Temp. Corrections		-262	-257	-250	-245	-243	-241	-239	-236	-234	-230	-228	-224	-221	-215	-208	-208	-211	-216	-225	-234	-244	-250	-256	-259	.....	-235			
Corrected Means..		638	636	644	652	662	654	653	651	652	649	643	640	640	638	636	609	565	528	512	533	574	605	628	638	.....	.....	620		
Mean Hourly Variations from Monthly Mean.		-18	-16	-24	-32	-42	-34	-33	-31	-32	-29	-23	-20	-20	-18	-16	11	55	92	108	87	46	15	-8	-18	.....	.....	.....	1.004917	
SEPTEMBER 1855. Temperature of Horizontal Force Magnetometer.																														

Correction for $\bar{i}$ Faht. = $\frac{\text{sec.}}{3.396}$ Zero. at Temperature $88.8 = 1497$.Ditto to Therm. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15$$

Ditto reduced to $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	$\frac{\Delta X}{1+X}$		
Madras Mean Time.	P.M. h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41						
OCTOBER 1855. Horizontal Force Magnetometer.										-1.4 *		-0.9 *																		
	1	842	865	904	925	927	918	913	915	875	856	840	828	818	820	812	790	740	718	702	730	767	800	828	840	832	-200	632	1.004817	
	2	832	840	845	840	833	825	815	817	818	819	822	818	815	810	822	784	739	686	670	702	730	780	811	860	797	-190	607	5024	
	3	925	950	999	1025	1040	1117	1140	1094	1067	1052	1040	1021	1004	979	903	860	838	828	818	828	859	893	913	911	963	-200	763	3735	
	4	900	917	913	894	897	912	913	900	902	883	867	878	890	910	932	960	918	988	914	904	930	920	983	965	916	-197	719	4099	
	5	963	970	968	965	938	932	923	921	910	902	897	898	900	882	868	835	795	763	732	732	772	830	869	890	877	-168	709	4182	
	6	877	872	866	887	862	867	862	855	837	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7	—	—	—	—	—	—	—	—	—	792	750	741	734	718	697	648	589	533	525	550	582	643	672	670	735	-93	642	4735	
	8	680	682	682	693	702	707	710	708	710	704	700	696	694	690	672	630	588	568	520	556	602	647	692	713	664	-54	610	5000	
	9	731	752	767	734	729	750	749	750	707	687	670	653	637	625	717	730	663	632	592	590	625	699	750	762	696	-87	609	5008	
	10	770	782	784	783	767	752	750	755	760	744	730	724	719	727	725	688	629	569	525	530	588	660	700	742	704	-86	618	4934	
	11	770	740	754	693	738	742	740	735	735	731	730	730	732	720	730	700	680	628	554	585	660	690	720	728	707	-75	632	4817	
	12	760	758	752	742	758	740	729	728	737	737	740	727	715	710	737	732	680	610	563	580	640	697	728	757	711	-79	632	4817	
	13	770	768	769	754	748	748	750	722	790	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	14	—	—	—	—	—	—	—	—	—	755	722	715	710	702	740	708	653	600	590	559	598	660	732	750	709	-89	620	4917	
	15	766	757	760	760	755	761	756	759	762	757	755	747	741	757	760	742	699	640	628	618	665	700	774	799	734	-116	618	4934	
	16	800	770	764	774	786	793	805	789	760	777	797	798	800	810	794	733	690	650	637	685	722	775	802	828	764	-138	626	4867	
	17	830	822	835	836	837	830	850	858	810	805	803	796	790	798	777	732	649	590	560	580	622	682	711	730	756	-156	600	5082	
	18	729	740	782	827	853	907	980	982	1050	1027	1007	983	960	940	882	875	838	810	793	822	845	880	882	860	886	-132	754	3810	
	19	850	857	855	855	837	848	834	850	830	824	821	815	810	820	821	819	777	723	730	741	802	848	857	855	820	-100	720	4091	
	20	828	840	894	845	844	842	864	820	820	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	21	—	—	—	—	—	—	—	—	—	809	800	789	780	772	760	730	687	642	648	663	708	750	772	781	779	-106	673	4479	
	22	790	798	812	812	800	793	780	775	778	769	762	767	774	770	732	718	672	659	657	662	686	710	730	721	747	-108	639	4760	
	23	740	740	745	750	760	732	735	755	758	748	740	750	762	770	758	734	688	652	674	668	747	772	797	785	740	-84	656	4619	
	24	770	772	779	783	772	785	782	778	772	767	765	766	768	762	753	716	678	644	622	639	669	729	779	799	744	-91	653	4644	
	25	782	770	780	784	790	798	796	790	768	772	778	773	770	768	764	725	680	633	590	592	624	650	718	750	735	-112	623	4892	
	26	725	732	743	753	759	760	762	760	755	747	742	745	750	755	750	715	662	623	600	610	652	722	770	789	724	-112	612	4983	
	27	790	790	782	780	782	841	860	845	840	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	28	—	—	—	—	—	—	—	—	—	804	770	752	735	712	692	659	620	610	630	649	700	744	748	750	745	-89	656	4619	
	29	771	772	786	775	791	792	782	747	735	740	748	732	717	710	695	670	633	608	602	620	660	710	740	780	721	-68	653	4644	
	30	807	837	808	764	761	757	759	740	732	727	725	721	719	692	686	644	608	565	555	600	628	670	700	731	706	-89	617	4942	
	31	750	740	752	755	762	760	760	755	740	731	724	721	720	710	700	678	655	658	647	648	650	650	650	660	707	-82	625	4876	
Monthly Means..	798	801	810	807	808	815	818	811	806	795	787	781	776	772	766	739	694	660	640	653	694	737	771	785	764					
Temp. Corrections	-136	-131	-125	-123	-120	-117	-115	-114	-113	-110	-108	-106	-104	-101	-99	-97	-100	-104	-109	-116	-122	-126	-131	-133						

Correction for $\dot{i}$ Faht. = 3.396 ^{sed.}Ditto to Therm. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75^\circ 15'$$

Zero at Temperature $88.8 = 1497$.Ditto reduced to $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Temperature Corrections.	Corrected Means.	$\frac{\Delta X}{1+X}$	
Madras Mean Time.	P.M. 4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41	Means.				
NOVEMBER 1855. Horizontal Force Magnetometer.										1.1 *		-1.6 *																	
	1	667	685	726	750	743	730	722	710	690	690	687	672	660	645	640	604	570	537	536	562	570	580	578	588	648	-29	619	1.004926
	2	600	608	654	694	722	720	723	725	632	636	637	618	602	592	616	560	545	550	542	577	625	655	670	670	632	7	639	4760
	3	667	668	664	674	680	672	669	660	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4	—	—	—	—	—	—	—	—	—	654	655	656	660	650	652	620	590	558	560	592	640	685	700	690	649	-36	613	4975
	5	671	682	673	682	686	676	674	648	738	759	777	780	787	782	760	725	677	630	608	679	732	747	802	798	716	-78	638	4768
	6	770	770	804	847	839	804	758	769	770	775	777	763	753	762	725	700	690	682	685	695	717	729	747	752	753	-92	661	4579
	7	790	810	819	800	790	749	726	760	764	758	750	733	720	741	748	700	655	622	620	662	703	733	760	770	737	-98	639	4760
	8	762	767	789	776	767	791	768	772	770	767	762	757	755	730	728	688	667	637	620	650	688	718	746	780	736	-109	627	4859
	9	796	830	808	807	793	795	748	770	780	774	766	761	760	748	730	682	640	618	597	623	662	708	735	750	737	-104	633	4809
	10	744	747	785	788	771	763	758	750	743	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	11	—	—	—	—	—	—	—	—	—	723	700	697	697	693	675	647	600	565	552	597	648	689	726	734	700	-66	634	4801
	12	729	715	705	708	706	713	712	710	704	702	697	690	687	684	662	617	575	542	550	603	650	692	722	730	675	-53	622	4900
	13	723	710	719	717	718	712	715	715	690	687	682	681	683	672	652	640	608	582	557	545	587	620	668	700	666	-53	613	4975
	14	711	692	694	700	691	691	683	683	660	657	652	648	647	638	612	560	525	495	480	480	520	568	620	668	624	-45	579	5256
	15	689	683	669	667	662	661	658	652	653	644	633	620	610	620	605	590	562	537	502	508	529	562	607	622	614	-34	580	5248
	16	630	630	660	672	708	708	707	707	712	699	684	671	662	661	642	613	587	585	572	560	590	620	631	650	648	-14	634	4801
	17	679	700	758	769	744	744	759	700	663	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	18	—	—	—	—	—	—	—	—	—	668	670	661	655	650	632	602	580	559	555	560	588	600	630	638	657	-2	655	4628
	19	660	671	692	691	701	684	677	671	653	653	650	644	642	635	610	577	560	544	538	550	561	598	640	662	632	1	633	4809
	20	649	652	650	652	659	666	642	648	610	616	620	619	622	590	590	565	590	555	545	570	613	650	680	710	623	6	629	4843
	21	713	700	745	759	755	723	740	731	688	676	662	662	665	652	623	602	570	557	574	600	627	644	670	705	668	2	670	4504
	22	713	710	699	697	698	681	672	664	657	660	660	652	647	640	630	590	563	543	485	510	570	600	606	630	632	-15	617	4942
	23	637	660	710	709	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	24	678	680	680	675	668	659	653	657	660	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	25	—	—	—	—	—	—	—	—	—	661	660	647	637	615	607	580	552	525	514	537	561	600	636	670	625	-14	611	4992
	26	678	660	659	657	655	650	650	650	650	647	642	634	630	622	620	588	550	508	495	523	572	593	610	628	615	-17	598	5099
	27	644	660	648	658	650	650	659	650	650	649	645	638	635	630	616	582	550	522	515	528	550	570	576	590	611	-19	592	5148
	28	600	598	611	648	649	651	643	640	640	632	622	609	600	590	579	534	487	430	501	492	560	570	582	602	586	-15	571	5322
	29	670	680	664	657	658	626	661	690	685	694	700	689	682	700	699	685	662	632	610	610	620	642	651	640	663	-9	654	4636
30	657	670	681	672	674	680	680	680	678	665	650	652	658	654	664	643	620	596	589	592	602	609	618	610	646	-17	629	4843	
Monthly Means..	692	695	706	713	711	704	698	696	688	686	682	674	670	664	653	620	591	564	556	576	611	639	664	679	660	—	—	—	—
Temp. Corrections.	-55	-51	-46	-43	-40	-38	-37	-35	-35	-32	-31	-29	-28	-25	-17	-14	-17	-24	-32	-38	-44	-49	-53	-54	.....	-36	—	—	—
Corrected Means..	637	644	660	670	671	666	661	653	654	651	645	642	639	636	606	574	540	524	538	567	590	611	625	625	—	—	—	—	—
Mean Hourly Variations from Monthly Mean.	-0108	-0165	-0298	-0381	-0389	-0348	-0306	-0306	-0239	-0248	-0223	-0173	-0149	-0124	-0100	0149	0413	0694	0826	0711	0471	0281	0108	-0008	.....	.....	.....	.....	

Correction for 1° Faht. = $\frac{1}{3} \cdot 396$ Zero, at Temperature $88.8 = 1497$.Ditto to Therm. = -0.5

$$k = a. \cotan. v. = 0.0003139 \times \cotan. 75.15$$

Ditto reduced to $80 = 1215$.

HORIZONTAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Means.	Temperature Corrections	Corrected Means.	$\frac{\Delta X}{X}$
Madras Mean Time.	P.M. h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41					
DECEMBER 1855. Horizontal Force Magnetometer.	1	620	632	661	662	659	667	668	667	660	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	624	-5	619	1.004926
	2	—	—	—	—	—	—	—	—	—	642	627	630	632	646	628	620	608	585	573	570	570	582	590	567	576	34	610	5000
	3	570	575	580	579	552	550	540	533	575	586	600	592	583	578	595	610	580	570	559	560	575	588	593	600	607	16	623	4892
	4	613	625	661	664	637	648	630	615	620	616	616	603	590	600	602	592	585	550	588	566	570	580	592	600	607	18	619	4926
	5	610	621	631	629	628	625	630	630	622	616	613	616	618	620	604	573	550	529	532	550	578	590	605	608	601	14	619	4926
	6	612	620	628	631	633	620	625	625	590	593	600	605	610	600	597	590	570	559	574	586	605	618	617	620	605	10	616	4950
	7	618	630	624	623	620	619	613	615	619	613	610	608	606	610	598	578	570	535	550	552	604	635	640	652	606			
	8	640	642	640	635	630	638	635	630	630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	601	5	606	5032
	9	—	—	—	—	—	—	—	—	—	633	639	626	612	602	578	540	522	474	488	508	570	620	651	648	591	3	594	5132
	10	630	623	630	638	635	629	630	622	615	609	607	613	618	618	590	550	520	500	495	518	535	583	617	570	545	24	569	5339
	11	567	570	592	590	608	609	587	575	565	556	550	550	550	530	500	472	435	392	418	430	435	620	660	715	545	56	651	4661
	12	720	696	655	678	678	655	649	610	617	606	598	588	578	582	580	542	528	500	490	493	510	545	576	598	595	73	611	4992
	13	610	598	582	583	585	574	570	568	574	559	547	543	538	530	520	508	470	440	453	452	474	500	550	573	538	76	599	5091
	14	580	591	577	577	572	565	560	562	552	550	552	542	532	523	518	490	460	430	408	412	442	480	535	551	523			
	15	564	567	562	568	569	561	540	530	518	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	512	91	603	5057
	16	—	—	—	—	—	—	—	—	—	513	512	501	490	472	496	472	452	420	410	430	485	535	542	590	555	84	639	4760
	17	555	550	534	604	614	595	600	580	562	555	551	541	530	527	546	524	520	502	502	533	560	560	580	602	548	90	638	4768
	18	600	591	588	588	592	595	595	573	570	569	572	557	542	552	529	512	498	470	465	490	527	525	532	528	538	89	627	4859
	19	544	560	559	549	548	—	547	545	550	546	545	545	545	537	540	536	517	479	484	502	512	530	570	582	533	95	628	4851
	20	570	566	570	592	584	583	579	580	561	554	550	540	530	520	508	500	468	470	440	437	473	525	542	547	483	118	601	5074
	21	542	525	513	522	518	513	507	506	498	492	490	489	488	475	438	422	410	392	395	428	465	502	530	538	486			
	22	532	540	532	529	521	520	520	523	525	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	489	108	597	5107
	23	—	—	—	—	—	—	—	—	—	502	482	477	472	480	470	443	403	372	373	400	454	515	540	542	484	128	612	4983
	24	545	540	540	534	533	531	524	520	522	519	520	517	514	500	490	450	402	367	358	362	427	470	523	530	484	135	586	5198
	25	522	535	547	558	577	563	523	529	523	515	510	506	501	490	480	440	415	385	363	370	386	420	462	493	451	135	586	5198
	26	499	480	492	492	498	491	482	482	479	470	464	462	460	452	456	427	393	362	340	342	400	463	481	469	451	129	597	5107
	27	430	440	485	497	485	470	473	471	470	467	467	459	450	472	483	465	440	394	363	378	393	428	462	492	451			
	28	500	502	500	511	506	504	494	493	480	483	490	485	480	475	467	456	413	375	362	376	410	474	503	502	468			
	29	508	513	510	514	490	511	501	495	483	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	530	106	636	4784
	30	—	—	—	—	—	—	—	—	—	532	585	589	592	580	580	558	530	477	460	462	510	560	592	600	575	88	663	4562
	31	590	600	602	609	615	613	610	611	580	577	578	580	582	588	590	570	540	508	500	508	528	560	589	580				
Monthly Means..	573	574	577	583	580	578	570	565	560	557	557	552	548	545	538	517	492	463	459	470	500	539	564	573	543				
Temp. Corrections	51	56	60	63	67	67	69	72	74	76	77	80	81	84	87	89	87	82	75	68	61	56	53	53	.....	70			
Corrected Means..	624	630	637	646	647	645	639	637	634	633	634	632	629	629	625	606	579	545	534	538	561	595	617	626	.....	.....	613		

Adopted Temperature 80°.

VERTICAL FORCE MAGNETOMETER.

* The numbers in these Columns are not observed but interpolated, for the sake of obtaining the daily Means. The small figures heading them are the corrections in interpolations.

$$\text{Corr. for } \frac{1}{k} \text{ Faht.} = \frac{q}{k} = 1.365.$$

$$k = a. \cotan. \theta. \left(\frac{r}{T} \right)^2 = 0.0000291. \times \cotan. 7^\circ 39' 20'' \times \left(\frac{6.918}{6.267} \right)^2 = 0.0002638.$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
Madras MeanTime.	P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.	Temperature Corrections.	Corrected Means.	
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
FEBRUARY 1855. Vertical Force Magnetometer.	1	4720	4659	4659	4641	4641	4621	4621	4621	4662	4653	4614	4622	4614	4586	4634	4709	4748	4781	4781	4792	4765	4735	4754	4729	4682	4	4686	
	2	4700	4700	4700	4700	4654	4624	4624	4624	4609	4619	4600	4608	4601	4578	4634	4613	4664	4718	4754	4761	4794	4798	4772	4745	4675	8	4683	
	3	4701	4701	4701	4653	4653	4653	4653	4613	4613	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5	4701	4651	4621	4621	4621	4601	4601	4601	4736	4681	4597	4597	4582	4609	4609	4619	4595	4639	4665	4631	4679	4730	4696	4714	4642	—4	4638	
	6	4686	4665	4617	4642	4642	4642	4642	4642	4648	4657	4636	4641	4631	4610	4612	4646	4646	4712	4782	4711	4732	4708	4645	4633	4659	—12	4647	
	7	4684	4684	4645	4645	4645	4625	4625	4644	4635	4648	4632	4640	4632	4615	4622	4643	4693	4777	4866	4931	4865	4810	4732	4660	4692	—10	4682	
	8	4690	4700	4675	4675	4680	4720	4720	4720	4630	4651	4642	4650	4642	4611	4646	4697	4718	4785	4834	4850	4775	4775	4746	4646	4703	—4	4669	
	9	4676	4700	4668	4668	4668	4648	4648	4648	4648	4637	4651	4636	4647	4642	4656	4694	4730	4791	4844	4897	4983	5007	4911	4868	4736	—0	4736	
	10	4723	4698	4684	4685	4685	4685	4685	4680	4680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	12	4744	4765	4720	4720	4720	4695	4652	4688	4686	4675	4634	4658	4667	4657	4657	4684	4728	4778	4778	4794	4836	4739	4765	4788	4718	4	4722	
	13	4738	4705	4705	4672	4672	4631	4631	4631	4654	4641	4599	4634	4654	4606	4656	4621	4699	4781	4863	4949	4914	4857	4774	4695	4708	2	4710	
	14	4695	4728	4664	4642	4686	4720	4738	4715	4661	4676	4661	4677	4678	4685	4699	4672	4729	4780	4821	4775	4705	4670	4609	4642	4697	6	4703	
	15	4689	4670	4670	4670	4670	4640	4706	4705	4634	4667	4671	4616	4546	4546	4626	4654	4749	4835	4923	4895	4868	4804	4732	4693	4703	4	4707	
	16	4693	4675	4664	4664	4664	4667	4667	4637	4612	4627	4612	4624	4621	4601	4646	4642	4717	4777	4810	4846	4867	4890	4849	4795	4703	1	4704	
	17	4770	4735	4735	4735	4735	4695	4695	4695	4700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	19	4758	4707	4653	4653	4661	4655	4655	4662	4683	4699	4686	4690	4679	4640	4578	4608	4642	4739	4825	4854	4880	4836	4729	4772	4706	—14	4704	
	20	4694	4671	4671	4631	4629	4629	4629	4591	4593	4631	4640	4649	4643	4615	4637	4672	4751	4841	4917	4899	4855	4826	4826	4750	4704	—21	4685	
	21	4726	4643	4680	4625	4620	4643	4624	4624	4595	4617	4609	4617	4609	4603	4613	4624	4667	4779	4844	4844	4902	4837	4814	4814	4691	—31	4673	
	22	4737	4671	4631	4616	4616	4616	4616	4616	4616	4640	4635	4648	4646	4594	4636	4610	4664	4728	4790	4763	4833	4924	4924	4826	4691	—33	4658	
	23	4756	4728	4673	4673	4643	4643	4634	4634	4634	4631	4621	4582	4622	4646	4618	4611	4602	4696	4799	4848	4868	4829	4771	4692	4689	—40	4651	
	24	4659	4629	4583	4611	4635	4631	4625	4610	4610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	26	4659	4659	4629	4629	4622	4580	4580	4597	4616	4623	4600	4608	4600	4632	4585	4652	4749	4800	4866	4861	4847	4812	4833	4790	4671	—41	4630	
	27	4750	4731	4731	4731	4639	4635	4635	4630	4646	4661	4646	4625	4589	4587	4608	4593	4669	4799	4854	4891	4797	4645	4626	4700	4684	—43	4642	
	28	4677	4703	4648	4662	4662	4605	4605	4635	4636	4649	4633	4650	4651	4651	4660	4655	4716	4789	4836	4823	4785	4785	4689	4637	4685	—38	4646	
																										4685	—36	4649	
Means.....	4709	4691	4668	4661	4657	4646	4646	4644	4643	4650	4629	4635	4627	4615	4633	4643	4693	4764	4817	4829	4821	4797	4759	4731	4692	—14	—	—	
Temp. Corrections	—27	—23	—18	—15	—13	—11	—10	—9	—7	—6	—6	—5	—4	—1	2	—1	—8	—14	—19	—24	—27	—29	—30	—30	—	—	—	—	
Corrected Means..	4682	4668	4650	4646	4644	4635	4636	4635	4636	4644	4623	4630	4623	4614	4635	4642	4685	4750	4798	4805	4794	4768	4729	4701	4692	—	—	—	
Mean Hourly Variations from Monthly Mean.	—00	—0106	0264	0739	0844	0897	1134	1108	1134	1108	0897	1451	1266	1451	1688	1134	0950	—0185	—1899	—3166	—3350	—3060	—2374	—1345	—0607	—	—	—	
FEBRUARY 1855. Temperature of Vertical Force Magnetometer.	1	810	808	806	800	800	796	795	794	790	790	789	789	785	785	788	792	795	800	805	807	807	809	807	7974	—	—	—	
	2	803	801	797	796	794	793	792	791	789	787	785	785	785	782	781	784	790	795	800	800	803	805	808	807	7939	—	—	—
	3	807																											

Corr. for 1 Faht. = $\frac{q}{k} = \frac{\text{scd.}}{1.379}$ $k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.000291 \times \cotan. 7^\circ 38' 31'' \times \left(\frac{6.917}{6.304} \right)^2 = 0.0002611$ Adopted Temperature 80°

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.	Temperature Corrections.	Corrected Means.
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41				
MARCH 1855. Vertical Force Magnetometer.										13.2		24.2																
	1	4664	4705	4705	4620	4620	4599	4599	4599	4600	4624	4621	4640	4611	4611	4631	4660	4716	4780	4795	4822	4801	4677	4656	4740	4671	-35	4636
	2	4684	4684	4684	4581	4665	4630	4630	4630	4618	4632	4620	4650	4632	4666	4606	4617	4692	4747	4787	4809	4762	4669	4632	4592	4663	-39	4624
	3	4614	4614	4614	4614	4634	4607	4607	4615	4615																		
	4										4627	4612	4644	4627	4603	4628	4696	4825	4979	5054	5065	4948	4820	4713	4651	4709	-49	4660
	5	4651	4662	4635	4601	4590	4602	4602	4602	4608	4631	4627	4646	4617	4600	4560	4539	4577	4659	4679	4710	4720	4691	4721	4721	4635	-52	4583
	6	4690	4652	4649	4649	4595	4595	4595	4595	4620	4638	4630	4657	4635	4635	4622	4645	4723	4723	4873	4884	4828	4798	4740	4776	4685	-49	4636
	7	4716	4672	4637	4617	4617	4591	4591	4591	4600	4614	4602	4628	4605	4587	4577	4577	4587	4625	4701	4736	4704	4717	4664	4696	4635	-40	4595
	8	4667	4643	4687	4655	4655	4655	4655	4655	4640	4641	4616	4626	4588	4588	4617	4622	4675	4764	4832	4866	4866	4772	4740	4747	4686	-38	4648
	9	4690	4732	4694	4685	4659	4638	4595	4595	4558	4571	4558	4606	4605	4623	4646	4698	4698	4766	4934	4881	4873	4821	4791	4791	4696	-37	4659
	10	4750	4693	4702	4702	4645	4645	4630	4556	4556																		
	11										4603	4624	4652	4632	4616	4629	4680	4743	4844	4863	4843	4812	4795	4766	4789	4699	-46	4653
	12	4767	4767	4775	4705	4705	4661	4605	4657	4657	4668	4652	4653	4606	4702	4655	4650	4719	4754	4702	4729	4693	4711	4735	4712	4693	-45	4648
	13	4679	4679	4679	4661	4645	4645	4665	4665	4643	4634	4599	4626	4605	4621	4628	4650	4684	4684	4645	4609	4632	4632	4681	4705	4650	-43	4607
	14	4678	4678	4678	4678	4636	4636	4628	4617	4632	4627	4595	4619	4595	4630	4670	4701	4754	4779	4749	4640	4550	4505	4539	4607	4643	-45	4598
	15	4680	4712	4684	4684	4684	4661	4644	4644	4625	4619	4587	4611	4587	4590	4592	4645	4732	4788	4788	4742	4681	4640	4597	4669	4662	-44	4618
	16	4723	4752	4752	4647	4647	4682	4670	4659	4658	4662	4639	4661	4634	4617	4631	4665	4731	4860	4962	4962	4962	4825	4728	4679	4725	-48	4677
	17	4653	4694	4694	4694	4636	4614	4637	4637	4612																		
	18										4652	4665	4668	4623	4655	4640	4640	4712	4700	4700	4733	4751	4796	4816	4821	4685	-48	4637
	19	4741	4676	4701	4651	4659	4659	4604	4604	4681	4659	4610	4641	4623	4623	4642	4680	4732	4775	4845	4845	4845	4775	4760	4760	4700	-52	4648
	20	4669	4694	4676	4676	4676	4676	4665	4665	4620	4610	4574	4616	4609	4595	4636	4674	4727	4777	4825	4825	4811	4788	4823	4745	4694	-57	4637
	21	4686	4667	4711	4670	4660	4660	4660	4660	4676	4681	4660	4684	4660	4625	4650	4701	4720	4720	4795	4840	4840	4827	4789	4775	4709	-63	4646
	22	4783	4732	4696	4664	4664	4655	4665	4665	4665	4678	4665	4691	4668	4609	4684	4740	4761	4800	4800	4825	4788	4788	4842	4804	4722	-67	4655
	23	4804	4723	4667	4667	4647	4647	4647	4627	4624	4636	4622	4636	4602	4602	4662	4670	4719	4751	4767	4766	4850	4892	4892	4820	4706	-62	4644
	24	4745	4725	4703	4703	4703	4712	4712	4712	4710																		
	25										4657	4578	4602	4578	4600	4668	4699	4729	4820	4930	4980	4935	4961	4777	4680	4734	-61	4673
	26	4680	4697	4697	4674	4674	4621	4645	4597	4670	4662	4628	4661	4646	4614	4651	4606	4659	4740	4742	4742	4698	4698	4677	4700	4670	-69	4601
	27	4721	4675	4655	4655	4655	4666	4666	4636	4632	4645	4632	4646	4611	4625	4626	4648	4696	4729	4755	4755	4784	4775	4716	4775	4682	-69	4613
	28	4745	4708	4662	4662	4651	4636	4636	4629	4641	4634	4600	4639	4630	4596	4652	4699	4751	4808	4831	4872	4832	4811	4811	4736	4703	-74	4629
	29	4707	4681	4661	4661	4661	4636	4636	4636	4607	4620	4607	4636	4617	4579	4628	4641	4661	4729	4762	4786	4756	4762	4762	4704	4672	-79	4593
	30	4704	4667	4667	4687	4687	4637	4637	4625	4601	4628	4629	4631	4585	4609	4634	4680	4680	4680	4805	4842	4820	4711	4717	4669	4676	-79	4597
Means.....	4703	4692	4683	4660	4653	4641	4636	4630	4630	4637	4617	4641	4617	4616	4633	4659	4708	4761	4805	4812	4790	4756	4734	4726		4685		
Temp. Corrections	-68	-63	-57	-54	-52	-51	-49	-48	-46	-45	-44	-42	-41	-39	-37	-42	-49	-55	-60	-64	-67	-70	-71	-71		.....	-54	
Corrected Means.	4635	4629	4626	4606	4601																							

$$\text{Corr. for } i \text{ Faht.} = \frac{q}{k} = \frac{\text{sec.}}{1.387}$$

$$k = a. \cotan. \theta. \left(\frac{T'}{T} \right)^2 = 0.000291 \times \cotan. 7^\circ 37' 1'' \times \left(\frac{6.917}{6.333} \right)^2 = 0.0002596$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Göttingen Mean Time.		Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.	Temperature Corrections	Corrected Means.		
P.M.																													
Madras Mean Time.		h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41				
APRIL 1855. Vertical Force Magnetometer.	March 31	4642	4642	4642	4642	4617	4635	4656	4656	4685	7.7	3.9	*																
	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	2	4652	4652	4656	4656	4647	4674	4674	4674	4650	4616	4567	4565	4555	4619	4637	4693	4771	4825	4871	4846	4785	4785	4689	4711	4686	-86	4593	
	3	4668	4668	4699	4699	4606	4653	4608	4608	4608	4616	4608	4600	4585	4571	4596	4660	4764	4811	4838	4869	4903	4787	4662	4733	4684	-90	4596	
	4	4777	4743	4605	4605	4626	4635	4594	4594	4594	4610	4611	4613	4608	4571	4664	4692	4637	4688	4688	4621	4586	4653	4653	4690	4640	-90	4594	
	5	4659	4586	4618	4618	4618	4632	4535	4632	4607	4615	4607	4611	4607	4585	4623	4653	4734	4770	4812	4796	4718	4676	4676	4646	4651	-89	4551	
	6	4676	4602	4597	4597	4595	4582	4582	4583	4608	4616	4608	4601	4586	4565	4601	4641	4674	4674	4687	4687	4746	4692	4635	4604	4627	-87	4564	
	7	4604	4581	4573	4573	4573	4573	4624	4654	4654																4627	-90	4537	
	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9	4677	4698	4664	4618	4618	4586	4591	4595	4592	4596	4584	4588	4584	4619	4676	4691	4728	4774	4805	4868	4714	4714	4697	4664	4664	-84	4580	
	10	4718	4635	4586	4575	4575	4576	4555	4568	4568	4568	4553	4546	4531	4586	4602	4664	4741	4769	4777	4747	4688	4647	4647	4663	4629	-77	4587	
	11	4643	4660	4640	4640	4640	4616	4616	4564	4613	4621	4613	4612	4604	4551	4616	4664	4737	4761	4790	4726	4657	4627	4627	4660	4646	-77	4552	
	12	4675	4641	4615	4615	4615	4615	4610	4591	4591	4588	4569	4561	4546	4546	4610	4675	4768	4824	4785	4838	4812	4756	4775	4775	4666	4646	-75	4571
	13	4693	4584	4584	4584	4584	4585	4585	4585	4590	4606	4607	4583	4552	4556	4614	4668	4668	4735	4769	4744	4665	4626	4598	4563	4622	4666	-81	4585
	14	4635	4635	4655	4655	4638	4638	4638	4602	4612																	4622	-92	4530
	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	16	4608	4608	4617	4600	4597	4597	4597	4620	4572	4621	4654	4649	4637	4595	4600	4649	4720	4814	4876	4876	4835	4780	4736	4736	4675	4678	-97	4581
	17	4658	4646	4671	4671	4671	4671	4651	4651	4635	4644	4638	4628	4611	4546	4641	4720	4796	4891	5004	5070	5013	4959	4838	4713	4735	4675	-96	4579
	18	4622	4667	4696	4627	4646	4646	4596	4596	4636	4619	4587	4596	4597	4581	4597	4695	4715	4807	4918	4961	4967	4943	4910	4804	4710	4735	-94	4616
	19	4683	4655	4624	4650	4685	4665	4642	4642	4585	4585	4570	4568	4559	4539	4606	4706	4767	4863	4999	4970	4894	4829	4749	4649	4695	4710	-105	4590
	20	4649	4611	4587	4620	4620	4668	4668	4668	4574	4569	4548	4550	4544	4561	4606	4661	4747	4847	4948	4948	4855	4780	4755	4665	4677	4695	-114	4563
	21	4632	4632	4607	4649	4610	4646	4646	4647	4647																	4677	—	—
	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	23	4564	4564	4564	4564	4564	4600	4610	4610	4591	4591	4576	4575	4567	4579	4589	4640	4707	4742	4774	4756	4713	4652	4652	4569	4621	4621	-119	4502
	24	4639	4611	4567	4567	4567	4585	4585	4585	4580	4603	4611	4602	4585	4529	4597	4660	4699	4753	4826	4775	4775	4724	4739	4639	4642	4621	-116	4505
	25	4639	4620	4620	4620	4620	4584	4584	4596	4597	4608	4604	4599	4586	4525	4588	4551	4652	4702	4750	4776	4734	4765	4688	4610	4634	4642	-113	4529
	26	4587	4625	4566	4566	4566	4590	4590	4590	4589	4570	4535	4534	4525	4567	4633	4694	4755	4820	4882	4882	4821	4805	4746	4678	4655	4634	-110	4524
	27	4630	4598	4598	4598	4598	4588	4588	4597	4598	4598	4582	4572	4554	4545	4593	4665	4729	4767	4740	4736	4724	4697	4640	4625	4655	4632	-112	4543
	28	4670	4616	4616	4616	4616	4633	4633	4633	4630																	4632	-121	4511
	29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	4734	4673	4647	4647	4642	4642	4642	4642	4620	4638	4640	4601	4554	4669	4651	4635	4730	4773	4845	4824	4746	4687	4571	4523	4666	4678	-114	4564
																										4666	-112	4554	
Means.....		4655	4633	4620	4618	4614	4620	4612	4615	4609	4608	4592	4586	4573	4571	4614	4666	4723	4779	4830	4829	4783	4744	4698	4661	4661	4661	—	—
Temp. Corrections		-112	-106	-101	-98	-96	-94	-91	-89	-87	-86	-85	-83	-82	-79	-80	-86	-93	-100	-106	-113	-116	-119	-119	-117	.....	—	—	
Corrected Means.		4543	4527	4519	4520	4518	4526	4521	4526	4522	4522	4507	4503	4491	4492	4534	4580	4630	4679	4724	4716	4667	4625	4579	4544	.....	—	—	
Mean Hourly Variations from Monthly Mean.		20	36	44	43	45	37	42	37	41	41	56	60	72	71	29	-17	-67	-116	-161	-153	-104	-						

$$\text{Corr. for } 1^\circ \text{ Fahr.} = \frac{q}{k} = \frac{\text{scd.}}{k} = 1.313$$

$$k = \alpha \cdot \cotan. \theta \cdot \left(\frac{T'}{T} \right)^2 = 0.000291 \times \cotan. \overset{\circ}{7} \overset{'}{40} \overset{''}{1} \times \left(\frac{\overset{s.}{6.917}}{6.141} \right)^2 = 0.0002743$$

Adopted Temperature 80.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23							
Madras Mean Time.		P.M. h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.	Temperature Corrections.	Corrected Means.			
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41							
MAY 1855. Vertical Force Magnetometer.										-0.9				10.6																		
	1	4587	4640	4602	4602	4602	4602	4602	4602	4605	4587	4570	4576	4560	4571	4615	4699	4737	4772	4831	4753	4734	4699	4662	4684	4646	-104	4542				
	2	4659	4642	4605	4630	4630	4630	4630	4630	4604	4607	4612	4623	4612	4574	4604	4673	4750	4827	4797	4775	4775	4691	4628	4628	4660	-109	4531				
	3	4617	4595	4635	4635	4635	4635	4563	4563	4573	4583	4595	4606	4595	4560	4597	4637	4720	4814	4814	4773	4834	4600	4553	4536	4636	-104	4532				
	4	4611	4629	4618	4618	4585	4585	4585	4585	4600	4581	4564	4577	4568	4525	4626	4665	4706	4706	4698	4677	4720	4707	4642	4586	4623	-109	4514				
	5	4625	4625	4625	4625	4596	4557	4557	4557	4558																						
	6														4578	4600	4611	4600	4532	4601	4704	4750	4797	4876	4910	4869	4869	4801	4693	4671	-120	4551
	7	4632	4632	4607	4607	4568	4599	4599	4599	4578	4586	4596	4602	4587	4572	4572	4585	4645	4716	4745	4745	4706	4737	4693	4640	4631	-129	4502				
	8	4613	4613	4613	4634	4634	4634	4648	4623	4623	4600	4588	4577	4588	4577	4592	4635	4730	4779	4848	4848	4848	4825	4806	4806	4764	4684	-129	4555			
	9	4712	4679	4640	4620	4620	4620	4590	4590	4591	4595	4600	4611	4600	4611	4585	4576	4586	4626	4682	4721	4710	4710	4722	4672	4636	-124	4512				
	10	4633	4613	4611	4611	4548	4597	4575	4602	4513	4514	4517	4540	4541	4582	4611	4611	4646	4667	4591	4591	4554	4622	4713	4679	4595	-120	4475				
	11	4641	4675	4692	4741	4604	4604	4604	4640	4570	4569	4570	4593	4595	4592	4612	4663	4746	4764	4733	4659	4635	4681	4700	4662	4648	-126	4522				
	12	4645	4645	4581	4581	4581	4563	4563	4592	4592																						
	13														4576	4562	4573	4562	4616	4689	4728	4797	4835	4791	4938	4889	4889	4857	4825	4686	-136	4550
	14	4860	4984	4886	4886	4886	4873	4873	4873	4879	4876	4874	4885	4874	4916	4895	4935	5004	5001	5040	5000	4964	4934	4934	4921	4919	-139	4780				
	15	4921	4930	4930	4930	4853	4817	4817	4817	4922	4921	4922	4914	4884	4919	4959	5000	5020	5020	5020	5067	5083	5105	4893	4817	4937	-145	4792				
	16	4725	4725	4725	4725	4725	4704	4715	4696	4696	4695	4696	4676	4635	4696	4690	4694	4770	4830	4876	4959	4897	4832	4832	4800	4751	-148	4603				
	17	4702	4726	4726	4726	4667	4648	4648	4648	4701	4689	4679	4690	4679	4615	4684	4734	4775	4819	4869	4814	4782	4818	4792	4710	4723	-142	4581				
	18	4710	4705	4665	4665	4665	4665	4631	4631	4654	4653	4654	4688	4700	4634	4661	4622	4698	4781	4814	4853	4823	4766	4707	4674	4697	-139	4558				
	19	4674	4692	4690	4720	4720	4646	4646	4646	4612																						
	20														4666	4721	4692	4642	4682	4742	4742	4764	4764	4765	4797	4797	4811	4814	4772	4717	-146	4571
	21	4750	4711	4695	4695	4695	4695	4695	4670	4709	4708	4709	4719	4707	4730	4771	4771	4767	4799	4799	4770	4747	4768	4803	4770	4736	-153	4583				
	22	4797	4746	4694	4694	4741	4741	4741	4740	4695	4714	4734	4725	4694	4694	4716	4760	4799	4838	4838	4798	4821	4770	4770	4782	4752	-167	4585				
	23	4757	4723	4710	4710	4710	4710	4710	4710	4711	4718	4727	4738	4727	4700	4701	4700	4756	4815	4828	4758	4810	4810	4828	4828	4746	-172	4574				
	24	4767	4744	4728	4728	4728	4728	4728	4692	4692	4710	4730	4741	4730	4728	4703	4747	4718	4735	4759	4816	4816	4789	4789	4743	4741	-175	4566				
	25	4785	4759	4758	4758	4707	4707	4707	4707	4737	4736	4737	4759	4760	4735	4740	4731	4764	4764	4787	4818	4839	4763	4730	4704	4750	-181	4569				
	26	4750	4785	4756	4711	4710	4713	4780	4717	4717																						
	27														4682	4649	4726	4782	4684	4731	4714	4866	4924	4916	5045	5045	4833	4855	4787	4787	-174	4613
	28	4761	4738	4738	4738	4738	4738	4738	4702	4705	4719	4734	4745	4734	4724	4772	4823	4857	4970	5023	5023	5023	4975	4855	4855	4809	-177	4632				
	29	4770	4751	4751	4751	4751	4751	4701	4701	4702	4701	4702	4724	4725	4757	4734	4734	4791	4791	4846	4890	4873	4873	4855	4773	4767	-166	4601				
	30	4745	4745	4745	4745	4745	4761	4761	4720	4708	4713	4719	4730	4719	4700	4755	4744	4757	4790	4834	4908	4908	4886	4851	4752	4768	-160	4608				
31	4774	4805	4805	4805	4805	4751	4727	4727	4769	4768	4769	4756	4722	4751	4751	4777	4814	4845	4899	4959	4919	4835	4718	4657	4788	-164	4624					
Means		4712	4713	4697	4700	4683	4677	4671	4666	4666	4668	4671	4682	4671	4666	4695	4722	4770	4810	4827	4839	4830	4799	4770	4730	4722						
Temp. Corrections		-162	-155	-148	-143	-140	-138	-136	-134	-132	-130	-129	-127	-126	-123	-124	-129	-134	-141	-149	-158	-164	-168	-170	-169		-143					
Corrected Means..		4550	4558	4549	4557	4543	4539	4535	4532	4534	4538	4542	4555	4545	4543	4571	4593	4636	4669	4678	4681	4666	4631	4600	4561							
Mean Hourly Variations from Monthly Mean.		29	21	30	22	36	40	44	47	45	41	37	24	34	36	8	-14	-57	-90	-99	-102	-87	-52	-21	18		$\frac{\Delta Y}{Y}$		002798			
		0796	0576	0826	0604	0938	1097	1207	1289	1234	1125	1015	0558	0933	0988	0219	-0384	-1564	-2469	-2716	-2798	-2386	-1426	-0576	0494							
MAY 1855. Temperature of Vertical Force Magnetometer.										*		*																				
	1	893	887	880	879	879	877	875	872	872	869	866	864	863	862	865	869	871	878	885	893	896	899	900	900	8789						
	2	898	894	884	884	882	880	880	877	877	873	870	870	870	869	870	875	876	882	889	896	898	899	900	900	8830						
	3	898	895	889	882	880	880	876	874	872	871	870	867	865	862	860	870	873	879	882	887	890	892	892	893	8791						
	4	892	892	887	880	879	878	876	875	875	875	875	875	875	870	872	880	882	885	890	893	899	899	900	901	8835						
	5	898	892	890	887	885	883	884	884	880																						
	6										882	885	884	883	880	882	884	890	895	900	906	912	914	912	912	8918						
	7	908	906	902	900	898	897	895	893	892	891	890	887	885	885	886	890	896	900	905	906	909	912	914	912	8983						
	8	910	905	902	901	899	895	895	894	895	893	892	891	890	887	888	889	894	898	901	905	906	910	911	910	8984						
	9	908	904	901	897	895	895	892	892	890	889	888	886	885	880	880	884	886	890	896	900	906	908	910	909	8946						
	10	905	902	895	890	890	889	888	883	882	881	880	879	878	878	880	882	885	890	896	900	906	910	913	912	8914						
	11	910	904	902	899	896	893	890	887	885	885	885	884	883	880	880	888	890	898	902	907	911	914	915	913	8959						
	12	910	905	900	898	897	895	894	894	892																						
	13										896	900	899	898	894	894	895	900	903	910	917	919	922	924	925	9034						
	14	921	913	908	899	902	905	905	904	900	898	897	895	893	890	895	897															

* The numbers in these Columns are not observed but interpolated, for the sake of obtaining the daily Means. The small figures heading them are the corrections of interpolations.

$$\text{Corr. for } i \text{ Faht.} = \frac{q}{k} = \frac{\text{sed.}}{1.369}$$

$$k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.000291 \times \cotan. 7^\circ 42' 30'' \times \left(\frac{6.916}{6.260} \right) = 0.0002630$$

Adopted Temperature 80°.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.		
Madras Mean Time.		P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
JUNE 1855. Vertical Force Magnetometer.											13.7					8.4														
	1	4706	4738	4738	4738	4720	4710	4740	4740	4706	4710	4686	4688	4674	4740	4777	4810	4866	4930	4930	4737	4919	4866	4807	4807	4770	-174	4596		
	2	4772	4772	4772	4772	4772	4720	4720	4720	4731	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4791	-174	4617		
	3	—	—	—	—	—	—	—	—	—	4753	4747	4755	4747	4770	4745	4745	4840	4864	4931	4954	4901	4901	4812	4761	4790	-177	4613		
	4	4735	4756	4746	4777	4777	4777	4777	4780	4763	4759	4727	4776	4809	4783	4811	4785	4809	4849	4898	4717	4717	4920	4860	4860	4810	-172	4638		
	5	4811	4847	4797	4797	4797	4797	4797	4794	4784	4792	4772	4780	4772	4785	4785	4760	4785	4831	4851	4885	4851	4851	4882	4839	4819	-161	4658		
	6	4802	4802	4749	4749	4749	4749	4749	4749	4749	4777	4780	4755	4761	4751	4728	4758	4758	4813	4853	4910	4994	4994	5055	4978	4885	4819	-145	4637	
	7	4823	4816	4755	4755	4736	4736	4736	4736	4743	4774	4778	4774	4754	4776	4759	4783	4783	4806	4830	4870	4836	4807	4807	4807	4782	-142	4664		
	8	4774	4819	4786	4746	4746	4746	4746	4746	4734	4743	4724	4753	4766	4780	4770	4770	4850	4894	4946	4948	4919	4889	4889	4857	4806	-136	4605		
	9	4806	4737	4738	4738	4770	4732	4711	4711	4691	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4741	-135	4614		
	10	—	—	—	—	—	—	—	—	—	—	4738	4757	4765	4757	4747	4759	4738	4758	4769	4752	4725	4711	4711	4738	4735	4749	-121	4634	
	11	4781	4812	4725	4701	4701	4701	4721	4701	4701	4715	4701	4736	4754	4745	4744	4775	4775	4803	4815	4784	4746	4746	4797	4799	4734	-119	4615		
	12	4842	4779	4740	4711	4711	4782	4739	4739	4708	4743	4751	4759	4751	4750	4775	4775	4800	4815	4764	4738	4738	4682	4766	4766	4778	-118	4660		
	13	4798	4739	4694	4715	4715	4715	4723	4723	4704	4705	4678	4686	4678	4715	4725	4736	4766	4802	4802	4816	4824	4743	4693	4727	4745	-123	4622		
	14	4760	4760	4709	4722	4722	4722	4722	4722	4726	4738	4723	4741	4742	4709	4756	4799	4865	4917	4960	4950	4904	4852	4760	4702	4778	-126	4639		
	15	4729	4729	4668	4649	4649	4715	4715	4715	4725	4739	4725	4721	4700	4702	4702	4667	4727	4766	4836	4877	4914	4914	4832	4774	4765	-120	4641		
	16	4707	4763	4763	4737	4737	4737	4737	4737	4736	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4773	-124	4649		
	17	—	—	—	—	—	—	—	—	—	—	4734	4705	4713	4705	4721	4700	4688	4746	4827	4651	4962	4962	4908	4870	4825	4761	-133	4625	
	18	4766	4798	4768	4768	4737	4737	4701	4701	4701	4704	4680	4688	4680	4754	4754	4761	4761	4810	4839	4882	4861	4814	4814	4779	4758	-134	4650		
	19	4749	4749	4749	4719	4749	4684	4684	4720	4748	4763	4750	4757	4748	4748	4747	4778	4812	4832	4845	4845	4888	4854	4805	4840	4784	-125	4666		
	20	4796	4823	4753	4753	4753	4700	4684	4684	4723	4750	4749	4747	4729	4740	4747	4739	4747	4775	4804	4839	4799	4789	4799	4778	4784	-131	4627		
	21	4751	4751	4775	4728	4713	4713	4713	4703	4720	4745	4743	4754	4749	4755	4770	4770	4829	4865	4901	4901	4967	4913	4818	4767	4766	-144	4640		
	22	4742	4742	4742	4742	4742	4783	4783	4763	4763	4777	4764	4760	4740	4705	4715	4762	4721	4784	4739	4713	4846	4846	4906	4807	4785	-140	4645		
	23	4770	4802	4802	4802	4802	4750	4750	4750	4722	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4785	-135	4677		
	24	—	—	—	—	—	—	—	—	—	—	4754	4759	4765	4754	4779	4779	4802	4839	4839	4880	4901	4832	4832	4775	4747	4791	-122	4687	
	25	4776	4811	4760	4748	4748	4748	4736	4736	4779	4788	4770	4778	4770	4760	4761	4730	4756	4811	4830	4770	4719	4719	4713	4675	4785	-122	4687		
	26	4759	4800	4782	4782	4754	4692	4692	4692	4620	4709	4770	4793	4800	4805	4833	4864	4877	4859	4810	4850	4850	4849	4819	4764	4785	-122	4687		
	27	4798	4758	4744	4716	4797	4731	4720	4720	4729	4773	4790	4798	4789	4767	4773	4778	4794	4827	4878	4878	4853	4853	4793	4793	4812	-122	4687		
	28	4805	4833	4787	4787	4758	4721	4775	4775	4797	4811	4798	4797	4779	4795	4841	4836	4851	4851	4836	4874	4840	4843	4843	4854	4809	-122	4687		
	29	4868	4823	4776	4813	4835	4834	4740	4740	4723	4766	4781	4806	4815	4768	4768	4806	4921	4871	4871	4916	4964	4847	4688	4688					
Means.....		4777	4782	4753	4747	4748	4737	4732	4733	4730	4751	4743	4750	4749	4753	4766	4769	4804	4834	4844	4853	4854	4840	4811	4785	4777				
Temp. Corrections		-154	-149	-143	-141	-138	-136	-135	-132	-132	-130	-129	-128	-126	-124</															

$$\text{Corr. for } \hat{i} \text{ Faht.} = \frac{q}{k} = \frac{\text{scd.}}{1.331}$$

$$k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cotan. 7^\circ 38' 20'' \times \left(\frac{6.916}{6.282} \right)^2 = 0.0002630$$

Adopted Temperature 80°.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	
Madras Mean Time.		P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.			
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41				
JULY 1855. Vertical Force Magnetometer.	June 30	4755	4802	4790	4806	4759	4773	4773	4723	4723	72 *	175 *																	
	1	—	—	—	—	—	—	—	—	—	4762	4787	4794	4765	4786	4810	4854	4854	4933	4982	5017	4985	4985	4909	4868	4833	-126	4707	
	2	4833	4785	4770	4770	4786	4746	4763	4763	4714	4758	4787	4796	4769	4763	4781	4734	4768	4831	4916	4850	4927	4855	4855	4794	4796	-145	4651	
	3	4777	4814	4814	4814	4814	4759	4759	4759	4782	4789	4782	4811	4804	4729	4776	4776	4843	4905	4923	4951	4917	4939	4921	4838	4825	-140	4685	
	4	4792	4792	4776	4776	4744	4750	4750	4750	4704	4744	4770	4775	4744	4753	4682	4655	4679	4726	4785	4819	4845	4729	4739	4782	4753	-138	4615	
	5	4782	4799	4758	4758	4758	4720	4720	4720	4770	4768	4775	4768	4793	4783	4735	4797	4834	4856	4893	4849	4849	4840	4805	4770	4791	-137	4654	
	6	4793	4793	4700	4700	4700	4700	4710	4748	4755	4748	4759	4735	4722	4726	4717	4735	4811	4850	4898	4856	4856	4821	4807	4764	-128	4636		
	7	4807	4785	4785	4785	4692	4730	4730	4730	4752	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	8	—	—	—	—	—	—	—	—	—	4757	4747	4744	4705	4725	4744	4745	4776	4805	4810	4848	4848	4736	4682	4730	4758	-132	4626	
	9	4753	4753	4723	4723	4723	4723	4688	4608	4692	4720	4733	4731	4693	4715	4780	4780	4815	4815	4828	4771	4759	4713	4713	4705	4736	-130	4606	
	10	4737	4759	4741	4741	4741	4741	4701	4717	4829	4832	4820	4809	4763	4765	4768	4768	4784	4816	4790	4839	4839	4870	4870	4857	4787	-134	4653	
	11	4823	4765	4755	4755	4742	4742	4742	4742	4764	4754	4761	4754	4784	4778	4778	4796	4816	4833	4859	4884	4884	4940	4918	4859	4907	4808	-140	4668
	12	4818	4784	4764	4764	4764	4782	4702	4702	4709	4723	4722	4760	4763	4736	4757	4711	4716	4760	4796	4767	4782	4782	4802	4778	4756	-141	4615	
	13	4778	4747	4747	4747	4775	4732	4732	4732	4672	4716	4745	4743	4705	4727	4727	4746	4767	4827	4868	4851	4893	4904	4888	4888	4777	-141	4636	
	14	4777	4777	4723	4723	4725	4767	4767	4771	4771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	15	—	—	—	—	—	—	—	—	—	4747	4709	4727	4709	4727	4758	4758	4766	4805	4836	4875	4920	4962	4968	4891	4790	-133	4657	
	16	4833	4778	4737	4720	4720	4785	4729	4729	4717	4724	4717	4718	4684	4699	4759	4769	4811	4875	4931	4965	4927	4953	4911	4870	4794	-130	4664	
	17	4767	4729	4704	4704	4704	4712	4712	4712	4683	4695	4692	4736	4744	4738	4785	4804	4854	4884	4884	4965	5004	4994	4950	4937	4796	-118	4678	
	18	4847	4792	4785	4785	4785	4757	4757	4757	4773	4781	4775	4796	4782	4755	4747	4767	4801	4801	4756	4792	4763	4791	4835	4784	4782	-115	4667	
	19	4753	4738	4707	4701	4722	4722	4750	4750	4812	4812	4798	4809	4785	4741	4744	4816	4817	4750	4750	4874	4753	4581	4640	4614	4747	-120	4627	
	20	4662	4711	4700	4702	4681	4681	4681	4704	4729	4745	4747	4744	4706	4708	4715	4709	4752	4753	4753	4856	4830	4833	4811	4775	4737	-122	4615	
	21	4740	4740	4707	4707	4707	4694	4694	4694	4694	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	22	—	—	—	—	—	—	—	—	—	4724	4739	4715	4656	4720	4741	4790	4768	4826	4913	4978	5015	4875	4764	4679	4762	-104	4658	
	23	4679	4696	4720	4720	4720	4732	4732	4732	4723	4743	4748	4722	4661	4661	4749	4756	4773	4773	4816	4820	4877	4932	4974	4847	4763	-106	4657	
	24	4764	4721	4721	4721	4721	4708	4708	4708	4718	4725	4718	4723	4693	4745	4723	4732	4749	4798	4798	4705	4682	4720	4770	4729	4729	-121	4608	
	25	4802	4802	4762	4762	4731	4702	4702	4697	4719	4734	4735	4722	4673	4719	4743	4759	4811	4837	4905	4878	4813	4813	4794	4758	4766	-130	4636	
	26	4688	4726	4726	4726	4711	4732	4764	4727	4727	4724	4707	4713	4683	4714	4742	4742	4760	4762	4807	4824	4824	4758	4721	4624	4735	-125	4610	
	27	4651	4731	4733	4730	4730	4720	4720	4725	4730	4747	4750	4768	4750	4729	4781	4855	4887	4927	4967	5011	4961	4943	5011	5011	4815	-133	4682	
	28	4885	4884	4782	4782	4782	4754	4720	4720	4725	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	29	—	—	—	—	—	—	—	—	—	4701	4662	4667	4636	4686	4790	4790	4844	4900	4981	4958	4945	4945	4860	4762	4798	-136	4662	
	30	4762	4740	4730	4730	4723	4739	4750	4750	4677	4660	4628	4688	4713	4685	4744	4733	4809	4809	4890	4985	5090	4994	4857	4763	4777	-141	4636	
	31	4691	4691	4665	4665	4665	4665	4665	4665	4684	4684	4691	4684	4712	4704	4722	4702	4663	4714	4751	4725	4702	4765	4723	4692	4695	-132	4563	
Means.....		4768	4764	4742																									

$$\text{Corr. for 1 Faht.} = \frac{q}{k} = \frac{\text{sec.}}{1.423} \quad k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.0000291 \times \cotan. 7^\circ 37' 45'' \times \left(\frac{6.916}{6.403} \right)^2 = 0.0002534$$

Adopted Temperature 80°.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23																																																																						
Madras Mean Time.	P.M. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m.	h.m. h.m. h.m. h

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{q}{k} = \frac{\text{sec.}}{1.359} \quad k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.000291 \times \cotan. 7^\circ 37' 11'' \times \left(\frac{6.916}{6.268} \right)^2 = 0.0002648 \quad \text{Adopted Temperature } 80^\circ$$

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Temperature Corrections	Corrected Means.			
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	Means.				
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41						
SEPTEMBER 1855. Vertical Force Magnetometer.										11.9		3.8																		
	1	4769	4750	4714	4660	4698	4689	4689	4690	4690	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4749	-127	4622		
	2	—	—	—	—	—	—	—	—	—	4701	4689	4711	4726	4726	4705	4750	4847	4900	4898	4898	4794	4794	4742	4757	4707	-126	4581		
	3	4757	4757	4694	4694	4723	4723	4723	4723	4724	4727	4707	4715	4716	4696	4704	4704	4726	4734	4745	4745	4695	4619	4578	4628	4731	-118	4613		
	4	4689	4721	4682	4669	4669	4685	4685	4685	4687	4690	4670	4674	4670	4714	4708	4708	4849	4911	4925	4891	4804	4776	4714	4680	4721	-116	4605		
	5	4754	4735	4732	4700	4700	4700	4700	4700	4702	4703	4680	4694	4701	4666	4734	4769	4834	4895	4840	4802	4719	4570	4602	4670	4721	-113	4633		
	6	4716	4741	4687	4687	4687	4684	4684	4684	4695	4701	4683	4681	4671	4702	4747	4829	4870	4983	4983	4895	4787	4696	4711	4711	4746	-118	4618		
	7	4729	4708	4675	4675	4690	4690	4690	4690	4655	4685	4691	4704	4709	4709	4727	4819	4922	4945	4878	4826	4791	4745	4677	4628	4736	-118	4618		
	8	4700	4770	4672	4672	4709	4702	4702	4669	4669	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9	—	—	—	—	—	—	—	—	—	4684	4676	4680	4676	4690	4739	4883	4883	4821	4786	4719	4684	4627	4596	4630	4710	-108	4602		
	10	4662	4704	4658	4658	4658	4685	4685	4695	4696	4694	4669	4661	4646	4712	4712	4851	4900	4874	4758	4758	4718	4707	4648	4692	4713	-96	4617		
	11	4763	4800	4800	4800	4800	4661	4661	4661	4702	4692	4659	4678	4689	4689	4731	4807	4918	4983	4951	4875	4875	4706	4649	4649	4758	-97	4661		
	12	4651	4706	4644	4644	4644	4644	4644	4661	4680	4684	4664	4654	4636	4630	4716	4809	4907	5048	5007	4897	4794	4712	4655	4675	4725	-104	4621		
	13	4710	4737	4687	4687	4687	4668	4668	4640	4676	4690	4680	4691	4694	4669	4669	4771	4771	4979	5022	4979	4921	4777	4738	4738	4748	-97	4651		
	14	4737	4750	4690	4690	4690	4677	4677	4627	4651	4663	4651	4662	4666	4628	4646	4712	4776	4835	4835	4859	4809	4658	4593	4640	4701	-92	4609		
	15	4694	4694	4694	4694	4648	4648	4648	4654	4654	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	16	—	—	—	—	—	—	—	—	—	—	4686	4695	4699	4695	4641	4679	4697	4826	4878	4946	4879	4659	4582	4625	4625	4702	-100	4602	
	17	4665	4665	4665	4665	4635	4622	4622	4648	4648	4662	4652	4656	4652	4635	4705	4743	4804	4806	4752	4752	4722	4732	4680	4680	4686	-96	4590		
	18	4669	4669	4669	4673	4673	4673	4619	4619	4637	4652	4644	4656	4661	4661	4682	4792	4836	4910	4953	4967	4880	4787	4706	4634	4722	-99	4623		
	19	4681	4710	4682	4682	4682	4629	4629	4629	4607	4653	4675	4681	4680	4672	4682	4762	4825	4852	4853	4830	4769	4712	4712	4698	4708	-105	4603		
	20	4743	4734	4658	4639	4675	4685	4686	4637	4637	4666	4671	4683	4688	4661	4661	4719	4719	4795	4841	4803	4735	4681	4681	4627	4697	-111	4586		
	21	4696	4696	4696	4646	4646	4684	4684	4684	4630	4656	4658	4651	4637	4640	4737	4761	4819	4835	4904	4786	4680	4619	4667	4667	4699	-116	4583		
	22	4723	4723	4673	4673	4673	4626	4626	4603	4603	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	23	—	—	—	—	—	—	—	—	—	—	4648	4669	4673	4669	4640	4694	4781	4900	4986	4986	4986	4849	4756	4696	4755	4734	-114	4620	
	24	4755	4722	4662	4679	4679	4679	4679	4647	4612	4667	4698	4697	4689	4680	4728	4794	4845	4960	4960	5011	4895	4821	4759	4759	4753	-96	4657		
	25	4725	4678	4655	4643	4643	4677	4677	4591	4679	4691	4679	4678	4670	4690	4692	4741	4766	4857	4891	4788	4775	4775	4697	4693	4710	-80	4630		
	26	4676	4676	4652	4652	4652	4632	4632	4651	4670	4670	4646	4650	4646	4652	4592	4702	4746	4779	4779	4827	4735	4697	4641	4641	4679	-78	4601		
	27	4682	4686	4635	4635	4635	4586	4586	4586	4594	4653	4689	4677	4657	4610	4640	4689	4820	4880	4970	4970	4760	4727	4623	4658	4694	-86	4608		
	28	4723	4723	4632	4632	4632	4564	4618	4618	4671	4667	4640	4670	4692	4671	4714	4800	4782	4891	4891	4891	4846	4766	4797	4714	4719	-91	4628		
	29	4695	4675	4675	4675	4675	4675	4650	4650	4630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
30	—	—	—	—	—	—	—	—	—	—	4676	4699	4712	4717	4686	4710	4757	4813	4862	4883	4883	4781	4775	4775	4766	4729	-85	4644		
Means.....	4711	4717	4679	4673	4676	4664	4663	4654	4660	4678	4673	4680	4678	4																

$$\text{Corr. for } 1^\circ \text{ Faht.} = \frac{q}{k} = \frac{\text{sed.}}{k} = 1.408$$

$$k = a. \cotan. \theta. \left(\frac{T}{T'} \right)^2 = 0.000291 \times \cotan. 7^\circ 38' 20'' \times \left(\frac{6.915}{6.370} \right)^2 = 0.0002557$$

Adopted Temperature 80° .

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23																							Means.	Temperature Corrections.	Corrected Means.		
Madras MeanTime.	P.M.																												
	h.m. h.m.																												
4 41 5 41 6 41 7 41 8 41 9 41 10 41 11 41 12 41 13 41 14 41 15 41 16 41 17 41 18 41 19 41 20 41 21 41 22 41 23 41																													
OCTOBER 1855. Vertical Force Magnetometer.																													
	1	4766	4760	4760	4760	4760	4685	4661	4661	4640	4641	4650	4681	4697	4697	4705	4705	4808	4794	4830	4830	4783	4783	4805	4720	4733	-93	4640	
	2	4688	4726	4726	4726	4676	4676	4697	4688	4670	4654	4644	4683	4708	4708	4672	4705	4730	4792	4849	4818	4786	4786	4745	4772	4722	-87	4635	
	3	4802	4766	4766	4766	4766	4692	4706	4706	4651	4640	4637	4644	4637	4665	4695	4735	4749	4723	4723	4708	4708	4730	4704	4704	4709	-93	4616	
	4	4725	4725	4685	4648	4648	4648	4648	4698	4698	4664	4637	4633	4615	4615	4620	4764	4780	4706	4814	4779	4835	4782	4752	4673	4700	-88	4612	
	5	4650	4616	4616	4616	4616	4594	4594	4594	4658	4654	4658	4654	4658	4654	4636	4702	4744	4838	4924	4924	4870	4809	4760	4713	4696	-78	4618	
	6	4673	4647	4647	4647	4665	4665	4632	4632	4632	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	8	4695	4664	4671	4671	4671	4702	4656	4656	4658	4663	4675	4655	4620	4620	4654	4721	4795	4850	4803	4730	4609	4546	4586	4646	4676	-27	4649	
	9	4691	4691	4637	4637	4637	4651	4651	4651	4620	4602	4591	4594	4582	4638	4731	4731	4734	4773	4725	4725	4705	4742	4688	4643	4670	-44	4626	
	10	4643	4604	4579	4579	4579	4579	4579	4579	4653	4663	4680	4642	4590	4621	4655	4648	4720	4731	4821	4821	4821	4758	4685	4685	4663	-47	4616	
	11	4705	4624	4624	4575	4645	4615	4615	4615	4586	4614	4650	4657	4650	4607	4567	4644	4672	4672	4783	4783	4681	4630	4608	4621	4643	-42	4601	
	12	4671	4671	4627	4627	4627	4650	4680	4680	4563	4627	4699	4706	4699	4592	4659	4738	4740	4836	4872	4904	4864	4767	4677	4649	4701	-47	4654	
	13	4649	4649	4643	4643	4643	4613	4613	4613	4613	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	15	4636	4669	4669	4669	4644	4644	4644	4644	4644	4647	4643	4647	4637	4612	4594	4618	4670	4770	4816	4839	4769	4769	4769	4769	4626	4684	-59	4625
	16	4648	4614	4614	4614	4614	4655	4646	4646	4654	4671	4695	4729	4749	4644	4634	4681	4811	4872	4858	4759	4701	4701	4744	4740	4696	-68	4628	
	17	4695	4695	4634	4634	4634	4659	4659	4659	4652	4635	4625	4628	4616	4616	4614	4647	4735	4840	4855	4825	4825	4753	4753	4685	4691	-76	4615	
	18	4710	4640	4640	4640	4640	4729	4729	4729	4704	4671	4646	4643	4625	4674	4732	4771	4819	4855	4791	4700	4644	4695	4695	4638	4698	-65	4633	
	19	4656	4686	4686	4686	4663	4663	4661	4661	4640	4631	4629	4636	4629	4597	4652	4719	4797	4848	4898	4945	4885	4769	4769	4718	4713	-51	4662	
	20	4671	4616	4661	4613	4613	4591	4591	4591	4584	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	22	4688	4625	4621	4660	4660	4626	4626	4626	4626	4644	4644	4651	4658	4651	4639	4655	4680	4739	4805	4786	4696	4674	4674	4676	4645	4669	-55	4614
	23	4645	4701	4701	4663	4663	4663	4619	4619	4680	4655	4638	4652	4651	4641	4685	4730	4756	4831	4810	4690	4654	4680	4614	4572	4676	-45	4631	
	24	4630	4642	4642	4642	4626	4626	4626	4626	4661	4631	4609	4630	4636	4636	4600	4612	4720	4813	4825	4773	4716	4683	4659	4617	4662	-45	4617	
	25	4689	4689	4632	4612	4612	4633	4633	4633	4605	4628	4658	4646	4620	4610	4623	4645	4724	4770	4770	4820	4807	4807	4725	4725	4680	-55	4625	
	26	4660	4676	4670	4670	4670	4670	4670	4670	4599	4595	4599	4592	4570	4633	4636	4636	4679	4731	4706	4766	4816	4824	4764	4707	4675	-59	4616	
	27	4684	4684	4647	4647	4647	4675	4675	4675	4675	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	29	4724	4675	4605	4638	4638	4638	4629	4629	4627	4623	4627	4625	4609	4595	4660	4662	4651	4651	4607	4615	4655	4655	4752	4721	4646	-41	4605	
	30	4747	4705	4634	4662	4662	4669	4669	4669	4668	4664	4668	4663	4643	4598	4669	4672	4724	4746	4728	4695	4666	4666	4698	4679	4678	-46	4632	
31	4670	4670	4670	4670	4670	4649	4649	4649	4647	4643	4647	4653	4645	4707	4707	4751	4800	4817	4747	4694	4648	4648	4722	4744	4689	-37	4652		
Means.....	4686	4671	4656	4652	4651	4651	4647	4648	4642	4638	4643	4645	4633	4632	4652	4693	4752	4794	4802	4769	4739	4719	4705	4680	4683	.....	-57	.....	
Temp. Corrections	-71	-65	-61	-59	-57	-55	-53	-52	-50	-48	-48	-47	-46	-45	-45	-48	-54	-58	-62	-66	-68	-71	-72	-72	.....	.....	.....	.....	
Corrected Means..	4615	4606	4595	4593	4594	4596	4594	4596	4592	4590	4595	4598	4587	4587	4607	4645	4698	4736	4740	4703	4671	4648	4633	4608	4683			4626	
Mean Hourly Variations from Monthly Mean.	11	20	31	33	32	30	32	30	34	36	31	28	39	39	19	-19	-72	-110	-114	-77	-45	-22	-7	18	.....	.....	.....	.....	
	0281	0511	0793	0844	0818	0767	0818	0767	0869	0921	0793	0716	0997	0997	0486	-0486	-1841	-2813	-2915	-1969	-1151								

Corr. for 1 Faht. = $\frac{q}{k} = \frac{\text{scd.}}{1.314}$ $k = a. \cotan. \theta. \left(\frac{r'}{r} \right)^2 = 0.000291 \times \cotan. 7^\circ 39' 3'' \times \left(\frac{6.915}{6.148} \right)^2 = 0.0002740$ Adopted Temperature 80°

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections.	Corrected Means.		
Madras Mean Time.	P.M.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41					
NOVEMBER 1855. Vertical Force Magnetometer.																													
	1	4744	4722	4722	4722	4689	4714	4700	4700	4700	4697	4710	4729	4710	4710	4717	4780	4834	4885	4852	4852	4820	4854	4854	4795	4759	-16	4743	
	2	4760	4722	4722	4722	4737	4737	4738	4738	4675	4667	4675	4712	4710	4710	4745	4750	4750	4839	4795	4740	4740	4715	4746	4746	4733	-5	4728	
	3	4720	4859	4823	4787	4820	4820	4819	4819	4807																			
	4																												
	5	4790	4765	4765	4765	4765	4734	4734	4734	4797	4811	4840	4859	4840	4795	4777	4824	4920	4997	4945	4850	4781	4781	4690	4760	4805	-42	4763	
	6	4777	4777	4777	4777	4777	4751	4734	4734	4739	4731	4739	4768	4759	4800	4771	4848	4901	4901	4828	4828	4835	4835	4791	4751	4789	-47	4742	
	7	4783	4750	4750	4750	4688	4688	4688	4669	4697	4740	4759	4740	4719	4773	4749	4840	4885	4885	4818	4787	4737	4737	4757	4756	-50	4706		
	8	4691	4780	4780	4780	4753	4735	4735	4692	4708	4739	4758	4739	4714	4687	4737	4786	4807	4745	4769	4769	4744	4744	4752	4747	-56	4691		
	9	4752	4722	4722	4722	4682	4682	4639	4639	4669	4662	4670	4690	4672	4658	4658	4658	4695	4722	4765	4757	4757	4740	4677	4696	4696	-51	4645	
	10	4696	4630	4630	4630	4635	4635	4635	4634	4634																			
	11																												
	12	4693	4653	4699	4631	4631	4681	4681	4681	4665	4650	4650	4669	4650	4704	4638	4638	4780	4821	4870	4769	4711	4711	4690	4649	4692	-33	4659	
	13	4676	4676	4673	4673	4673	4673	4643	4632	4655	4693	4693	4654	4644	4618	4648	4744	4744	4706	4748	4790	4790	4740	4694	4690	4690	-36	4654	
	14	4694	4639	4690	4690	4666	4666	4666	4666	4652	4644	4652	4671	4652	4625	4675	4738	4810	4901	4841	4808	4765	4741	4741	4696	4709	-32	4677	
	15	4723	4689	4685	4685	4690	4669	4634	4634	4638	4630	4638	4654	4632	4667	4610	4683	4740	4789	4789	4826	4786	4786	4768	4734	4699	-29	4670	
	16	4706	4706	4709	4709	4718	4718	4718	4718	4723	4684	4661	4684	4669	4672	4676	4742	4830	4878	4878	4812	4812	4787	4764	4724	4737	-20	4717	
	17	4754	4709	4712	4712	4712	4712	4712	4715	4715																			
	18																												
	19	4751	4693	4693	4693	4719	4695	4695	4695	4699	4679	4675	4694	4675	4684	4670	4734	4804	4871	4804	4737	4737	4769	4762	5126	4740	-12	4728	
	20	4938	4938	4938	4938	4938	4929	4929	4929	4900	4890	4897	4924	4912	4959	4910	4968	5053	5084	5084	5058	5020	4970	4970	4948	4959	-11	4948	
	21	4966	4858	4884	4870	4957	4664	4664	4664	4880	4878	4893	4907	4882	4874	4884	4916	4995	5054	5054	5038	5020	5020	5020	4966	4909	-9	4900	
	22	4966	4859	4872	4872	4872	4875	4875	4905	4872	4864	4872	4894	4877	4886	4899	4906	4989	5054	5064	5038	4989	4989	4902	4880	4920	-16	4904	
	23	4902	4922	4922	4922	4895	4859	4859	4859	4866	4884	4918	4907	4858	4858	4849	4881	4949	5065	5040	4974	4950	4986	4915	4925	4915	-21	4894	
	24	4885	4890	4890	4890	4829	4829	4829	4879	4879																			
	25																												
	26	4909	4870	4870	4870	4924	4924	4924	4924	4934	4915	4912	4920	4889	4901	4901	4956	5031	5031	5096	5174	5089	5030	4985	4985	4957	-20	4937	
	27	4945	4945	4943	4943	4941	4941	4941	4941	4880	4880	4872	4880	4907	4896	4869	4863	4838	4838	4908	4880	4880	4850	4846	4849	4937	4895	-20	4875
	28	4965	4873	4936	4936	4924	4924	4924	4885	4886	4892	4914	4908	4863	4855	4907	4907	4966	5002	4999	4999	4910	4931	4931	4970	4925	-18	4907	
	29	5009	4930	4930	4930	4925	4870	4870	4870	4870	4868	4860	4868	4892	4877	4906	4902	4902	4954	4958	4971	4925	4925	4950	4918	4963	4916	-15	4901
	30	4941	4981	4889	4881	4843	4843	4843	4851	4803	4796	4803	4798	4755	4762	4774	4779	4805	4844	4848	4827	4860	4813	4811	4790	4831	-11	4820	
Means.....		4813	4791	4793	4788	4789	4769	4764	4762	4764	4759	4769	4789	4771	4764	4769	4793	4859	4908	4894	4869	4845	4837	4813	4825	4804			
Temp. Corrections		-39	-33	-29	-28	-26	-24	-22	-20	-18	-17	-16	-15	-13	-11	-13	-19	-25	-30	-35	-39	-42	-43	-41	.....	-26			
Corrected Means.		4774	4758	4764	4760	4763	4745	4742	4742	4746	4742	4753	4773	4756	4751	4758	4780	4840	4883	4864	4834	4806	4795	4770	4784			4778	
Mean Hourly Variations from Monthly Mean.		4	20	14	18	15	33	36	36	32	36	25	5	2															

Corr. for 1° Faht. = $\frac{q}{k} = \frac{\text{scd.}}{1.394}$ $k = a. \cotan. \theta. \left(\frac{T'}{T}\right)^2 = 0.0000291 \times \cotan. 7^\circ 37' 30'' \times \left(\frac{6.915}{6.345}\right)^2 = 0.0002582$ Adopted Temperature 80.

VERTICAL FORCE MAGNETOMETER.

Gottingen Mean Time.		Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Means.	Temperature Corrections	Corrected Means.	
P.M. Madras Mean Time.		h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.	h.m.				h.m.
		4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41				
DECEMBER 1855. Vertical Force Magnetometer.											-2.2			7.6															
	1	4761	4742	4742	4701	4754	4747	4747	4708	4708																			
	2																												
	3	4505	4424	4395	4436	4436	4420	4420	4420	4415	4423	4436	4418	4384	4384	4436	4454	4458	4458	4480	4480	4500	4533	4533	4572	4451	-4	4686	
	4	4486	4414	4421	4405	4405	4434	4434	4434	4462	4425	4392	4371	4335	4365	4363	4384	4400	4400	4281	4303	4345	4455	4455	4415	4399	-0	4399	
	5	4496	4396	4413	4391	4391	4415	4415	4419	4405	4403	4405	4430	4439	4392	4454	4475	4475	4484	4503	4420	4420	4461	4441	4481	4434	1	4435	
	6	4450	4395	4395	4395	4395	4395	4365	4365	4223	4221	4223	4307	4376	4376	4411	4411	4419	4377	4280	4216	4233	4302	4366	4366	4344	-7	4337	
	7	4465	4425	4428	4428	4428	4428	4430	4430	4429	4425	4426	4427	4413	4420	4423	4423	4399	4429	4471	4437	4396	4372	4355	4382	4420	-7	4413	
	8	4382	4344	4344	4376	4376	4376	4376	4394	4394																			
	9																												
	10	4428	4405	4405	4405	4405	4387	4387	4387	4396	4395	4399	4405	4395	4393	4393	4415	4522	4522	4531	4531	4489	4526	4468	4409	4433	-13	4398	
	11	4409	4453	4454	4454	4420	4422	4422	4422	4424	4421	4422	4430	4422	4393	4443	4529	4625	4718	4746	4716	4716	4551	4461	4442	4496	-12	4421	
	12	4442	4411	4411	4450	4450	4450	4450	4450	4404	4402	4404	4412	4405	4405	4426	4470	4535	4595	4629	4587	4587	4538	4501	4463	4470	-2	4494	
	13	4463	4438	4409	4409	4409	4386	4386	4386	4356	4380	4408	4421	4419	4419	4436	4505	4553	4635	4650	4583	4544	4544	4510	4510	4465	12	4482	
	14	4465	4504	4504	4504	4504	4414	4493	4493	4480	4478	4480	4495	4495	4496	4485	4516	4599	4711	4761	4759	4682	4633	4574	4574	4546	17	4482	
	15	4554	4517	4517	4517	4517	4491	4491	4491	4513																	22	4568	
	16																												
	17	4539	4562	4532	4583	4571	4575	4550	4550	4493	4508	4527	4535	4527	4504	4504	4490	4600	4644	4708	4708	4667	4624	4584	4604	4553	30	4583	
	18	4626	4592	4592	4592	4581	4581	4581	4581	4549	4561	4578	4575	4557	4576	4537	4600	4699	4815	4893	4893	4822	4727	4663	4663	4570	32	4602	
	19	4673	4623	4598	4598	4598	4575	4575	4559	4580	4605	4615	4610	4607	4600	4600	4655	4716	4804	4785	4759	4769	4719	4678	4648	4648	28	4671	
	20	4635	4597	4616	4606	4597	4597	4597	4599	4599	4594	4594	4599	4589	4589	4589	4615	4638	4675	4643	4695	4695	4704	4657	4621	4623	30	4678	
	21	4621	4625	4618	4618	4595	4595	4595	4595	4631	4629	4631	4615	4584	4595	4605	4596	4640	4696	4737	4699	4699	4712	4622	4622	4632	34	4657	
	22	4622	4659	4595	4595	4595	4595	4595	4595	4595																	44	4676	
	23																												
	24	4630	4592	4592	4552	4552	4552	4552	4549	4555	4563	4575	4583	4575	4580	4549	4575	4607	4682	4682	4654	4654	4630	4561	4541	4589	39	4653	
	25	4596	4629	4646	4646	4646	4646	4646	4646	4620	4618	4620	4634	4633	4633	4539	4576	4623	4671	4671	4650	4650	4660	4633	4633	4632	36	4625	
	26	4630	4615	4615	4614	4614	4614	4580	4580	4568	4556	4548	4581	4599	4599	4607	4651	4696	4745	4745	4793	4710	4623	4591	4566	4627	44	4676	
	27	4589	4626	4626	4581	4630	4608	4608	4605	4585	4583	4585	4604	4608	4608	4557	4586	4686	4731	4673	4590	4618	4598	4598	4639	4613	49	4676	
	28	4661	4632	4628	4614	4614	4632	4594	4594	4609	4604	4603	4611	4604	4603	4601	4601	4638	4693	4768	4698	4657	4617	4576	4570	4613	47	4660	
	29	4623	4615	4624	4602	4602	4602	4602	4615																		47	4673	
	30																												
	31	4615	4586	4561	4561	4561	4561	4577	4577	4578	4576	4578	4597	4600	4573	4568	4609	4731	4770	4693	4693	4716	4698	4590	4527	4626	37	4670	
																											28	4640	
	Means.....	4553	4532	4526	4524	4525	4517	4518	4517	4506	4504	4507	4517	4511	4508	4508	4531	4584	4632	4642	4625	4607	4591	4557	4537	4545			
	Temp. Corrections	9	15	18	20	21	21	23	25	27	28	28	29	30	32	33	30	25	20	16	13	10	8	7	8	.....	21		
Corrected Means.	4562	4547	4544	4544	4546	4538	4541	4542	4533	4532	4535	4546	4541	4540	4541	4561	4609	4652	4658	4638	4617	4599	4564	4545	.....	.....	4566		
Mean Hourly Variations from Monthly Mean.	4	19	22	22	20	28	25	24	33	34	31	20	25	26	25	5	-43	-86	-92	-72	-51	-33	2	21	.....	$\frac{\Delta Y}{Y}$	.....		
	0103	0491	0563	0568	0516	0723	0646	0620	0852	0873	0800	0516	0646	0671	0646	-0129	-1110	-2221	-2376										

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 24TH JANUARY 1855, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		WEDNESDAY, 24TH JANUARY, 1855.														THURSDAY, 25TH JANUARY, 1855.											
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9	
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
		0 0	1668	1663	1663	1661	1662	1660	1671	1699	1700	1692	1696	1693	1674	1674	1680	1684	1682	1688	1689	1682	1680	1680	1675	1672	
		5 0	68	63	63	61	62	61	73	99	00	95	95	94	73	74	80	84	82	88	89	82	80	80	75	72	
		10 0	68	63	64	60	62	63	74	99	00	95	94	95	72	74	80	84	82	89	89	82	80	80	75	72	
		15 0	68	63	64	60	61	61	75	1700	00	95	91	92	72	74	81	84	82	90	89	82	80	80	75	72	
		20 0	67	63	64	60	60	60	77	00	1699	95	89	90	72	74	81	84	82	90	87	81	80	78	75	72	
		25 0	67	62	64	60	59	61	80	00	97	96	89	88	72	74	81	83	83	90	85	80	80	78	75	70	
		30 0	67	62	64	62	60	61	85	00	95	95	90	85	72	74	81	83	83	90	85	80	80	78	73	70	
		35 0	67	62	63	62	60	62	89	1699	97	94	91	84	72	75	81	83	83	90	84	80	80	78	73	70	
		40 0	66	62	63	63	59	63	90	99	95	94	92	82	72	77	81	82	83	90	83	80	80	76	73	70	
		45 0	66	62	63	63	59	65	92	99	94	94	91	80	72	78	82	81	83	90	82	80	80	76	73	70	
		50 0	65	62	62	62	59	66	94	99	93	94	91	77	73	80	83	81	84	89	82	80	80	76	73	70	
		55 0	64	62	62	62	58	68	96	1700	93	94	90	76	74	80	83	81	86	89	82	80	80	76	72	70	
		HORIZONTAL FORCE.	m. s.	650	649	645	640	640	680	694	660	700	665	633	653	668	704	713	714	713	724	725	708	737	710	695	688
			2 0	650	649	645	640	640	684	691	667	692	668	640	651	668	704	716	713	713	726	725	708	738	710	695	688
			7 0	650	649	645	640	640	688	690	674	690	670	642	657	669	706	718	713	713	728	724	709	740	710	695	688
	12 0		649	649	644	640	640	689	688	680	686	661	646	660	665	706	719	712	712	730	723	710	737	706	695	688	
	17 0		649	649	643	640	640	690	685	688	684	650	650	665	668	706	721	710	710	733	722	714	734	706	693	686	
	22 0		648	649	643	640	641	687	680	680	676	654	654	664	671	704	721	707	712	736	720	716	731	702	693	686	
	27 0		647	650	643	640	645	686	685	677	672	658	655	668	672	704	723	706	712	734	718	719	729	702	693	686	
	32 0		647	650	641	640	647	682	688	674	670	651	654	665	681	704	723	706	712	733	716	722	725	700	690	686	
	37 0		647	650	641	640	650	680	683	670	670	642	650	662	686	704	723	709	712	732	713	726	725	700	690	686	
	42 0		647	650	640	640	655	676	671	680	662	631	652	664	691	704	723	711	716	731	712	728	720	700	690	686	
	47 0		648	648	640	640	660	673	670	689	650	628	654	660	696	706	720	712	719	728	710	731	716	697	690	684	
	52 0		649	648	640	640	676	682	668	694	654	627	651	662	696	710	717	711	721	726	709	734	716	697	690	684	
	57 0	649	648	640	640	676	682	668	694	654	627	651	662	696	710	717	711	721	726	709	734	716	697	690	684		
	Faht...		79.1	79.1	79.1	79.1	79.0	78.6	78.7	78.8	79.0	79.1	79.3	79.5	79.6	79.9	79.9	79.9	79.9	79.8	79.7	79.7	79.7	79.5	79.0	79.2	
	Attached Thermometer...		79.1	79.1	79.1	79.1	79.0	78.6	78.7	78.8	79.0	79.1	79.3	79.5	79.6	79.9	79.9	79.9	79.9	79.8	79.7	79.7	79.7	79.5	79.0	79.2	
VERTICAL FORCE.	m. s.	4552	4552	4568	4575	4596	4574	4565	4637	4677	4756	4879	4961	4886	4807	4708	4666	4599	4656	4616	4615	4631	4589	4582	4550		
	3 0	52	52	68	75	96	74	65	37	77	56	87	61	72	07	08	66	99	56	16	15	31	89	82	50		
	8 0	52	52	68	75	96	74	65	37	77	56	4901	70	64	07	08	66	99	56	16	15	31	89	82	50		
	13 0	52	52	68	75	96	74	65	37	77	70	12	78	60	07	08	66	99	56	16	15	31	89	82	50		
	18 0	52	52	68	75	96	70	65	37	77	82	25	84	60	07	08	60	99	56	16	15	31	89	82	50		
	23 0	52	52	68	75	96	70	65	37	77	82	25	84	60	07	08	60	99	56	16	15	31	89	82	50		
	28 0	52	52	68	75	96	73	65	85	77	94	25	80	60	07	08	60	99	56	16	15	31	89	82	50		
	33 0	52	52	68	75	96	75	65	85	77	4805	25	76	60	07	08	60	99	56	16	15	31	85	82	50		
	38 0	52	52	68	75	96	75	65	85	77	4805	25	76	60	07	08	60	99	56	16	15	31	85	82	50		
	43 0	52	52	68	75	96	75	65	85	23	26	31	52	60	4764	08	60	99	56	16	15	31	85	70	80		
	48 0	52	52	68	75	96	75	65	85	24	42	38	26	60	64	08	21	99	56	16	15	10	85	70	80		
	53 0	52	52	68	75	90	75	65	85	30	72	42	00	60	64	4666	21	99	56	16	15	10	85	70	80		
58 0	52	52	68	75	90	75	65	85	38	81	65	4886	60	64	66	21	4612	56	15	15	10	85	70	80			
Faht...		79.0	79.0	79.0	78.8	78.3	78.5	79.0	79.5	79.8	80.																

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 23RD FEBRUARY 1855, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		FRIDAY, 23RD FEBRUARY, 1855.														SATURDAY, 24TH FEBRUARY, 1855.										
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0 0	1660	1658	1660	1655	1659	1665	1676	1680	1678	1670	1660	1652	1661	1668	1679	1674	1672	1675	1677	1675	1674	1670	1670	1668	1668
	5 0	60	58	60	54	60	65	76	80	78	70	58	52	61	70	78	74	72	75	77	75	73	70	70	68	68
	10 0	60	58	60	53	60	65	77	80	77	70	58	52	61	73	77	74	72	75	77	75	73	70	68	68	
	15 0	58	58	60	53	60	66	77	80	77	70	55	52	62	74	77	73	72	75	77	75	73	70	68	68	
	20 0	57	58	60	52	59	66	78	79	77	69	55	54	62	76	77	73	72	75	77	75	72	70	69	68	
	25 0	55	59	61	52	60	68	80	78	77	69	55	56	62	77	77	72	72	75	77	75	72	70	69	68	
	30 0	54	59	61	55	61	69	80	78	77	68	55	58	62	77	77	72	72	75	77	75	72	70	69	68	
	35 0	55	60	60	58	62	71	80	78	75	65	52	60	62	78	76	71	73	76	76	75	72	70	69	68	
	40 0	56	60	60	58	61	70	80	77	75	65	52	60	63	79	75	71	74	76	76	75	72	70	69	68	
45 0	56	60	59	58	63	74	80	78	73	62	52	60	64	80	75	72	74	77	75	75	72	70	69	68		
50 0	57	60	58	59	63	73	80	78	73	60	52	60	65	88	75	72	75	77	75	75	71	70	69	68		
55 0	57	60	57	59	63	74	80	78	72	60	52	60	66	79	74	72	75	77	75	75	71	70	69	68		
HORIZONTAL FORCE.	m. s.	767	771	820	803	792	749	688	653	629	647	690	748	780	795	839	814	800	801	821	831	838	832	830	813	
	2 0	765	774	820	804	786	749	688	652	628	650	696	748	780	802	835	814	800	801	821	831	837	833	829	810	
	7 0	763	776	824	803	783	741	689	650	628	650	702	750	780	810	832	813	800	801	821	831	836	833	829	808	
	12 0	760	779	822	801	778	733	689	649	621	650	708	750	782	817	830	813	800	801	821	831	835	832	827	806	
	17 0	758	789	820	803	772	724	685	642	622	654	713	752	784	825	830	811	800	801	822	834	834	832	825	804	
	22 0	756	796	822	800	770	726	684	636	625	659	716	755	786	828	828	810	802	802	822	836	833	832	824	801	
	27 0	757	800	822	800	770	727	683	635	627	665	725	763	788	830	827	810	798	806	822	839	835	834	824	798	
	32 0	760	805	820	800	765	712	675	634	630	665	725	770	788	831	822	808	799	811	822	840	833	834	821	797	
	37 0	762	811	819	800	761	709	670	632	633	665	730	775	789	835	820	807	800	817	823	841	832	834	819	794	
	42 0	765	813	819	800	758	702	664	630	638	677	733	777	784	838	819	807	800	820	824	841	832	833	819	792	
47 0	766	815	812	800	758	697	658	628	643	683	740	779	788	840	817	804	800	820	826	841	832	833	817	790		
52 0	768	819	812	796	758	694	654	628	645	690	742	779	786	842	815	802	800	820	828	839	832	833	816	789		
57 0	82.8	83.0	83.0	83.0	83.0	82.9	82.7	82.4	82.4	82.5	82.9	83.1	83.2	83.2	83.3	83.2	83.2	83.2	83.3	83.2	83.2	83.4	83.3	83.2	83.2	
Faht...																										
Attached Thermometer...		82.5	82.5	82.5	82.5	82.4	82.0	82.0	82.3	82.8	83.0	83.2	83.6	83.9	84.0	83.8	83.8	83.4	83.1	83.0	82.9	82.9	82.6	82.5	82.4	
VERTICAL FORCE.	m. s.	4582	4597	4646	4618	4611	4602	4696	4799	4848	4868	4829	4771	4692	4706	4659	4629	4583	4611	4635	4631	4625	4610	4610	4620	
	3 0	82	97	46	18	11	02	96	99	48	68	29	71	92	06	59	29	83	11	35	31	25	10	10	20	
	8 0	82	97	28	02	11	4593	96	4807	62	68	29	71	92	06	59	29	83	11	35	31	25	10	10	20	
	13 0	82	97	32	02	11	4621	96	07	70	68	29	71	92	06	59	29	83	11	35	31	25	10	10	20	
	18 0	82	97	32	02	21	4747	07	70	68	29	71	92	06	06	59	29	83	11	35	31	25	10	10	20	
	23 0	82	97	40	02	02	21	47	07	4915	68	29	71	92	06	59	29	83	11	35	31	25	10	10	20	
	28 0	82	97	40	02	02	21	47	07	4915	68	29	71	92	06	59	29	83	11	35	31	25	10	10	20	
	33 0	82	4624	40	02	02	20	47	21	15	68	29	92	92	06	59	29	83	11	35	31	25	10	10	20	
	38 0	82	52	40	02	02	21	87	21	15	45	29	92	92	06	59	29	83	11	35	32	25	10	10	20	
	43 0	82	52	32	02	01	32	87	30	15	45	00	92	92	06	59	29	83	11	35	32	25	10	20	20	
48 0	97	19	32	02	01	57	87	30	15	45	00	92	92	06	59	29	4601	20	35	32	25	10	20	20		
53 0	97	19	32	14	01	57	87	41	4882	45	00	92	92	06	29	29	01	20	35	32	25	10	20	20		
58 0	97	40	30	14	02	96	99	46	82	45	00	92	92	06	29	29	01	20	35	32	25	10	20	20		
Faht...		82.5	82.5	82.5	82.5	82.4	82.0	82.0	82.3	82.8	83.0	83.2	83.6	83.9	84.0	83.8	83.8									

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 21ST MARCH 1855, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		WEDNESDAY, 21ST MARCH, 1855.														THURSDAY, 22ND MARCH, 1855.									
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0	1666	1664	1663	1658	1673	1673	1674	1678	1677	1656	1644	1640	1657	1662	1661	1660	1657	1659	1658	1658	1659	1662	1661	1662
	5	67	64	63	58	73	74	74	76	76	56	43	40	57	62	61	60	57	59	58	58	59	62	61	62
	10	67	63	62	59	74	74	74	76	76	55	42	40	57	62	61	60	57	58	58	58	60	62	61	62
	15	67	63	62	61	74	74	75	75	74	55	42	40	57	62	61	60	57	57	58	58	60	62	61	62
	20	66	65	61	63	75	74	75	75	70	54	42	44	57	62	61	60	57	58	58	59	60	62	61	62
	25	65	64	61	64	72	74	76	76	65	52	42	47	57	62	60	60	58	59	58	59	60	62	61	62
	30	65	64	61	66	71	74	76	77	64	50	42	49	57	62	60	60	59	58	58	59	60	62	61	62
	35	65	64	61	66	71	74	76	77	63	47	40	50	58	62	60	59	59	58	58	60	60	62	61	62
	40	65	64	61	67	71	74	76	80	61	46	40	50	59	62	60	58	60	58	58	60	60	62	61	62
	45	65	64	60	68	72	74	77	80	60	46	40	52	60	62	60	57	60	58	58	60	60	62	62	62
	50	65	64	60	69	73	74	76	79	60	45	40	53	61	62	60	57	60	59	58	60	60	61	62	62
	55	65	63	59	71	73	73	77	78	58	45	40	54	62	62	60	58	60	58	58	59	61	61	62	62
	HORIZONTAL FORCE.	m.	868	876	883	866	841	811	734	679	667	648	700	747	815	840	849	860	869	880	872	850	888	863	849	850
7		868	877	882	861	840	810	733	679	666	648	702	747	816	842	851	860	871	880	870	854	890	858	849	850
12		870	877	881	860	840	807	730	679	665	647	702	749	817	843	851	860	872	877	868	857	890	854	849	850
17		870	877	881	856	840	800	729	679	663	647	704	756	819	844	850	860	873	872	866	859	890	852	848	850
22		870	879	882	851	840	792	727	679	660	646	710	770	819	846	848	860	874	867	864	861	890	851	848	850
27		871	879	882	852	840	780	725	678	657	650	720	779	819	847	847	860	876	852	862	863	888	851	848	850
32		871	879	883	852	839	772	719	676	656	656	725	781	819	847	850	861	878	854	861	866	886	850	848	850
37		872	880	882	851	837	764	710	676	654	660	725	784	819	846	851	862	880	856	860	868	885	850	848	850
42		872	881	882	850	832	760	700	675	652	665	725	785	820	844	854	862	880	857	859	872	883	850	849	850
47		872	881	881	852	828	755	689	675	650	670	730	789	822	844	857	862	881	857	858	875	880	850	849	850
52		873	882	880	850	825	749	680	674	650	680	736	794	827	844	858	863	882	858	855	878	877	850	849	850
57		874	882	878	842	819	740	680	673	649	688	740	801	834	846	859	864	881	864	852	883	870	849	849	850
Faht...		84.0	84.0	84.1	84.0	83.7	83.8	83.8	83.9	84.4	84.7	85.2	85.2	85.4	85.4	85.4	85.3	85.3	85.2	85.2	85.2	85.2	85.1	85.0	84.9
Attached Thermometer...		84.0	84.0	84.1	84.0	83.7	83.8	83.8	83.9	84.4	84.7	85.2	85.2	85.4	85.4	85.4	85.3	85.3	85.2	85.2	85.2	85.2	85.1	85.0	84.9
VERTICAL FORCE.	m.	4660	4660	4660	4625	4650	4701	4744	4721	4795	4840	4840	4827	4789	4775	4783	4732	4696	4664	4664	4655	4665	4665	4665	4647
	3	60	60	60	31	50	01	44	21	95	40	40	27	89	75	83	32	96	64	64	55	65	65	65	47
	8	60	60	66	45	52	01	44	21	95	40	40	27	89	75	83	32	96	64	64	55	65	65	80	47
	13	60	60	60	51	62	01	44	21	95	40	40	27	89	75	83	32	96	64	64	55	65	65	80	47
	18	60	62	52	60	62	01	22	21	95	40	40	27	89	75	83	32	96	64	71	55	65	65	80	47
	23	60	41	52	68	62	01	00	40	95	40	40	27	89	75	83	32	4701	64	71	55	65	65	80	47
	28	60	41	52	68	62	25	00	78	95	40	40	27	89	75	83	32	01	64	71	55	65	65	80	47
	33	60	46	52	64	62	25	00	78	4810	36	31	27	89	75	83	32	01	64	71	55	65	65	80	47
	38	60	49	52	68	62	44	00	78	10	36	31	27	89	75	83	32	01	64	71	55	65	65	80	47
	43	60	49	52	68	84	44	00	78	39	40	31	27	89	75	83	32	01	64	71	55	65	65	80	47
	48	60	49	52	68	84	44	00	78	39	40	31	27	89	75	83	32	01	64	71	55	65	65	80	47
	53	60	51	60	68	84	44	00	78	39	40	31	27	89	75	83	32	01	64	71	55	65	65	80	47
	58	60	55	60	82	84	44	00	78	39	40	31	27	89	75	83	32	4664	64	71	55	65	65	80	47
	Faht...	84.0	84.0	83.8	83.5	83.4	83.5	84.3	84.6	84.8	85.0	85.6	86.2	86.1	86.0	86.0	85.7	85.3	85.1	85.0	84.6	84.5	84.5	84.5	84.3
Attached Thermometer...	84.0	84.0	83.8	83.5	83.4	83.5	84.3	84.6	84.8	85.0	85.6	86.2	86.1	86.0	86.0	85.7	85.3	85.1	85.0	84.6	84.5	84.5	84.5	84.3	
INDUCTION INCLINO-METER.	m.	1780	1780	1781																					

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 18TH APRIL 1855, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		WEDNESDAY, 18TH APRIL, 1855.														THURSDAY, 19TH APRIL, 1855.										
		P. M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
	0 0	1680	1680	1677	1681	1696	1706	1706	1692	1674	1655	1639	1630	1645	1659	1670	1681	1680	1678	1683	1680	1685	1682	1682	1684	1684
	5 0	80	80	77	84	97	06	07	90	72	54	38	30	47	60	71	80	80	78	82	80	85	82	82	84	84
	10 0	80	80	77	87	98	07	08	89	71	53	37	30	49	60	72	80	80	79	81	80	85	82	84	82	82
	15 0	80	80	77	87	1700	07	07	88	69	51	37	30	50	61	72	80	80	79	80	80	84	81	84	82	82
	20 0	80	80	77	87	01	07	06	87	68	50	36	30	50	61	72	80	80	79	80	80	83	81	84	82	82
	25 0	80	80	77	87	01	06	04	82	68	49	35	32	50	61	74	80	81	80	80	80	83	81	84	82	82
	30 0	80	80	77	88	02	06	02	83	60	47	34	34	51	61	76	80	81	80	80	80	83	81	84	82	82
	35 0	80	80	77	90	02	06	1698	83	59	46	34	35	51	62	79	80	80	80	80	81	83	81	84	80	80
	40 0	80	80	78	91	02	07	97	83	58	44	33	38	52	62	80	80	79	80	81	81	82	81	84	80	80
45 0	80	79	78	91	03	07	96	82	58	44	32	39	54	64	81	81	77	80	81	82	82	81	84	80	80	
50 0	80	77	78	92	04	08	94	82	57	42	30	40	55	66	82	82	75	82	82	82	82	81	84	80	80	
55 0	80	77	80	94	05	07	93	79	56	41	30	43	57	68	82	82	76	82	81	83	82	81	84	80	80	
HORIZONTAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	2 0	930	927	927	930	932	925	880	790	771	766	788	860	948	980	972	952	956	972	990	1002	980	970	960	960	
	7 0	930	927	927	930	932	923	875	785	772	766	789	861	955	980	972	951	959	971	995	02	980	970	960	960	
	12 0	928	927	925	932	932	920	866	780	800	768	801	864	959	979	974	950	960	971	999	01	980	969	960	960	
	17 0	925	930	925	932	931	918	860	770	782	769	803	871	961	979	975	950	962	970	1006	998	979	968	957	960	
	22 0	920	930	926	935	933	916	858	760	771	771	804	874	965	979	975	949	962	970	08	995	978	964	957	960	
	27 0	920	930	926	935	936	914	857	756	769	772	816	882	970	979	971	949	965	971	10	993	978	964	957	960	
	32 0	920	930	923	934	939	914	849	756	766	774	823	890	972	979	968	950	967	972	08	991	976	964	958	960	
	37 0	925	930	924	932	936	914	829	762	764	776	824	905	974	979	963	950	969	974	07	990	975	964	958	960	
	42 0	925	930	925	931	932	914	820	763	763	778	836	917	975	979	960	950	970	977	05	987	973	963	958	960	
VERTICAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	3 0	4587	4614	4597	4581	4597	4695	4715	4807	4918	4961	4967	4943	4910	4804	4683	4655	4624	4650	4685	4665	4642	4642	4585	4606	
	8 0	87	14	92	86	97	95	15	07	18	61	67	43	10	04	83	55	24	50	85	65	42	42	85	06	
	13 0	87	14	92	4600	97	95	15	07	45	61	67	43	10	04	83	55	24	50	85	65	42	42	85	06	
	18 0	87	14	92	00	4602	95	15	20	50	61	67	43	10	04	83	55	24	50	85	65	42	42	85	06	
	23 0	87	14	92	00	02	95	15	20	52	61	67	43	4877	4760	83	55	24	50	85	65	42	42	85	06	
	28 0	87	4582	92	00	02	90	15	44	52	61	67	43	77	60	83	55	24	50	85	65	42	42	85	06	
	33 0	87	82	4600	00	02	90	15	45	49	61	67	43	77	60	83	55	24	50	85	65	42	42	85	06	
	38 0	87	82	00	00	20	90	40	50	49	61	67	43	77	60	83	55	24	50	85	65	42	42	85	06	
	43 0	87	82	32	00	20	90	40	50	49	61	67	43	77	60	83	59	24	50	85	65	42	42	85	06	
INDUCTION INCLINO-METER.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
	0 20	1771	1770	1770	1773	1784	1793	1794	1782	1769	1754	1742	1732	1745	1755	1760	1769	1771	1769	1772	1770	1772	1770	1770	1770	
	5 20	71	70	70	74	85	94	94	80	68	53	40	32	46	55	60	69	71	69	72	70	72	70	70	70	
	10 20	71	70	70	76	87	94	93	79	63	52	40	32	48	56	60	69	71	69	71	70	72	70	70	70	
	15 20	71	70	70	77	88	94	92	78	62	50	37	32	49	56	60	69	71	69	71	70	72	70	70	70	
	20 20	71	70	70	77	89	95	91	77	62	50	36	32	50	56	60	69	71	69	71	70	71	70	70	70	
	25 20	71	70	70	77	89	95	90	79	61	49	35	34	50	56	62	69	71	70	71	70	70	70	70	70	
	30 20	72	70	70	78	88	95	90	79	60	48	35	35	50	56	62	70	72	70	71	70	70	70	70	70	
	35 20	72	70	70	79	88	95	90	79	59	47	34	37	51	56	63	70	72	70	71	70	70	70	70	70	
	40 20	72	70	70	80	87	95	87	79	58	45	33	38	51	56	65	70	72	70	70	70	70	70	70	70	
METEOROLOGICAL OBSERVATIONS.	Barometer (uncorrected) = 29.0+.	In.	0.920	0.914	0.929	0.942	0.966	0.982	1.004	1.012	0.996	0.980	0.952	0.915	0.888	0.863	0.858	0.860	0.876	0.902	0.924	0.932	0.930	0.920	0.914	0.900
	Attached Thermometer.....	82.5	82.5	82.5	82.0	82.0	83.0	84.5	86.0	87.0	88.0	88.5	88.5	88.0	87.5	87.0	86.0	84.5	84.0	84.0	83.0	83.0	83.0	83.0	83.0	83.0
	Dry Thermometer (standard).....	82.6	82.1	81.7	81.2	83.3	86.6	88.9	92.0	91.6	93.0	92.4	92.4	92.1												

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 25TH MAY 1855, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		FRIDAY, 25TH MAY, 1855.														SATURDAY, 26TH MAY, 1855.										
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
		0 0	1662	1666	1668	1676	1676	1674	1675	1669	1660	1655	1651	1655	1660	1662	1663	1652	1652	1650	1649	1649	1649	1650	1656	1656
		5 0	62	66	68	77	76	76	75	69	60	54	51	55	60	62	63	52	51	50	49	49	49	50	56	56
		10 0	62	67	68	78	76	77	74	69	60	54	51	55	60	63	63	51	50	50	49	49	49	50	56	56
		15 0	62	68	69	78	76	77	72	67	60	53	51	55	60	63	63	51	50	50	49	49	49	50	56	56
		20 0	62	69	70	78	76	77	72	64	60	53	53	55	60	63	62	50	50	50	49	49	49	51	56	55
		25 0	62	68	71	77	76	77	73	61	59	53	53	55	60	63	60	50	50	50	49	49	50	51	56	55
		30 0	62	68	72	77	76	78	70	60	59	53	54	55	60	63	59	50	50	50	49	49	50	51	57	55
		35 0	62	68	72	77	76	78	70	60	59	52	55	55	61	63	58	50	50	49	49	50	50	52	57	55
		40 0	62	68	73	77	77	77	69	60	59	52	55	56	61	63	58	50	50	49	49	49	50	52	57	55
		45 0	62	68	73	76	76	77	69	60	59	51	55	58	61	64	57	52	50	49	49	48	50	53	57	54
		50 0	63	68	74	76	76	77	69	59	57	51	55	58	62	64	55	54	50	49	49	49	50	54	58	54
		55 0	65	68	75	76	75	76	69	60	57	51	55	59	62	63	54	53	50	49	49	49	50	55	58	54
		MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
2 0	1090			1091	1088	1078	1040	998	949	911	911	960	1010	1078	1118	1141	1148	1146	1130	1115	1098	1083	1070	1045	1090	1100
7 0	90			92	88	74	38	992	945	910	911	960	10	82	18	41	48	43	30	12	96	83	68	50	97	00
12 0	90			92	88	70	34	985	940	910	911	963	13	88	20	44	45	42	27	10	94	83	66	54	99	00
17 0	90			92	88	68	30	984	945	910	920	963	15	97	20	48	42	40	25	10	92	81	66	59	1102	1097
22 0	90			92	88	67	25	983	940	910	930	965	17	1100	23	45	47	40	21	10	92	81	64	62	04	96
27 0	90			92	87	65	20	981	940	911	931	968	23	02	27	46	50	40	20	10	92	80	64	69	07	94
32 0	90			91	86	63	16	978	940	911	935	970	28	05	30	50	50	40	20	10	91	80	60	72	09	93
37 0	90			91	86	62	13	970	930	909	938	973	35	08	30	53	50	40	18	12	89	80	56	78	10	88
42 0	90			90	86	60	10	965	927	908	942	979	40	10	30	55	50	40	18	14	88	80	42	81	10	87
47 0	90			90	85	54	07	960	927	908	945	983	50	13	30	52	50	38	17	13	87	80	44	84	10	86
52 0	90			89	84	50	05	958	920	908	950	990	59	13	36	50	50	35	17	10	86	77	46	89	08	86
57 0	90			88	82	43	02	954	912	910	955	998	65	15	39	47	50	32	19	08	84	74	49	89	06	85
Faht...				92.9	92.9	92.8	92.9	92.7	92.8	92.9	93.2	92.8	94.5	95.0	95.3	95.4	95.4	95.2	94.8	94.2	94.1	94.0	93.8	93.4	93.2	93.2	93.0
Attached Thermometer...		92.9	92.9	92.8	92.9	92.7	92.8	92.9	93.2	92.8	94.5	95.0	95.3	95.4	95.4	95.2	94.8	94.2	94.1	94.0	93.8	93.4	93.2	93.2	93.0	
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
		3 0	4737	4753	4760	4735	4740	4731	4764	4764	4787	4818	4839	4763	4730	4704	4750	4785	4756	4711	4710	4713	4780	4717	4717	4700
		8 0	37	53	60	35	40	31	64	64	87	18	39	63	30	04	50	85	56	11	10	13	80	17	17	00
		13 0	37	53	60	35	40	31	64	64	87	18	39	63	30	04	50	85	56	11	10	13	80	17	17	00
		18 0	37	53	60	35	40	31	64	68	88	18	39	63	30	04	50	85	56	11	10	13	80	17	17	00
		23 0	37	53	45	35	40	31	64	69	88	18	39	63	30	04	50	85	56	11	10	13	80	17	17	00
		28 0	37	53	45	20	40	31	64	72	98	18	39	63	30	04	50	85	37	11	10	13	80	17	17	00
		33 0	37	53	26	20	40	31	64	72	4817	18	39	63	30	04	50	85	37	11	10	13	80	17	17	00
		38 0	37	53	26	20	40	31	64	72	17	18	39	63	30	04	50	85	37	18	10	13	80	17	17	00
		43 0	37	53	02	20	40	31	64	73	17	18	39	63	30	04	50	85	37	18	10	13	80	17	17	00
		48 0	37	53	02	20	40	31	64	80	17	18	00	63	30	04	50	85	37	18	10	13	80	17	17	00
		53 0	37	53	04	20	40	31	64	79	17	18	00	63	30	04	67	85	37	18	10	13	80	17	20	00
		58 0	37	53	04	20	31	64	64	79	17	18	00	63	30	04	67	85	37	18	10	13	80	17	20	00
		Faht...		92.8	92.5	92.3	92.3	92.5	92.8	93.4	93.5	94.5	95.2	95.6	96.0	96.0	95.8	95.5	94.9	94.0	93.6	93.0	92.8	92.5	92.5	92.4	92.2
Attached Thermometer...		92.8	92.5	92.3	92.3	92.5	92.8	93.4	93.5	94																

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 20TH JUNE 1855, GOTTINGEN MEAN TIME.

Göttingen Mean Time.		WEDNESDAY, 20TH JUNE, 1855.														THURSDAY, 21ST JUNE, 1855.										
		P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	sed. 1659	sed. 1660	sed. 1660	sed. 1663	sed. 1676	sed. 1685	sed. 1690	sed. 1682	sed. 1670	sed. 1660	sed. 1643	sed. 1638	sed. 1632	sed. 1637	sed. 1641	sed. 1649	sed. 1645	sed. 1640	sed. 1640	sed. 1642	sed. 1649	sed. 1652	sed. 1645	sed. 1650
	0	0	60	60	60	63	79	85	90	82	69	58	42	38	32	37	41	49	45	40	40	42	49	52	45	50
	5	0	60	60	61	64	80	85	90	82	68	58	42	37	32	37	40	49	44	40	40	42	50	52	45	50
	10	0	60	60	61	65	82	85	90	80	67	56	42	37	32	38	40	49	44	40	41	42	50	50	47	50
	15	0	60	60	61	66	78	89	88	80	66	54	42	37	32	38	41	50	43	40	42	44	50	50	47	55
	20	0	60	60	61	68	78	89	87	80	64	52	42	35	32	38	43	50	43	40	42	45	50	47	50	55
	25	0	60	60	61	69	79	90	87	80	61	50	42	34	33	38	43	50	42	40	42	46	50	47	50	55
	30	0	60	59	60	71	80	91	87	80	68	49	42	33	34	37	44	50	42	40	42	47	50	47	50	55
	35	0	60	59	60	72	80	91	86	78	67	48	41	32	36	37	44	50	40	40	42	48	50	47	50	55
	40	0	60	59	60	74	80	91	86	77	66	46	40	31	36	36	44	50	40	40	42	48	50	45	50	55
	45	0	60	59	61	76	81	91	82	75	65	44	40	31	37	38	45	48	40	40	42	48	50	45	50	56
	50	0	60	60	62	77	82	91	82	73	63	43	39	31	37	39	47	47	40	40	42	49	50	45	50	56
	55	0																								
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	918	920	940	927	904	892	876	824	828	820	840	870	901	941	945	980	973	980	975	972	969	960	965	967
	2	0	918	924	940	924	902	891	874	824	828	820	841	871	902	945	949	980	971	980	974	972	968	960	965	967
	7	0	918	926	939	923	900	892	872	824	828	820	842	872	902	947	952	980	970	980	972	971	968	960	965	967
	12	0	918	927	937	921	897	892	870	820	827	821	842	873	903	949	960	978	970	979	974	970	967	960	965	967
	17	0	917	929	937	919	901	887	860	819	827	822	843	874	906	950	966	978	970	980	976	970	966	960	965	967
	22	0	917	931	940	917	902	887	850	819	824	826	843	876	910	950	969	978	970	980	977	970	965	960	965	967
	27	0	917	934	938	915	899	882	848	819	820	828	844	877	914	950	975	978	970	980	978	970	964	960	965	964
	32	0	917	936	934	914	898	881	845	819	818	829	846	879	921	944	978	978	970	980	976	970	964	960	965	964
	37	0	917	938	930	912	898	881	842	822	817	830	850	880	927	941	980	977	970	980	975	970	964	960	965	962
	42	0	918	940	930	910	896	882	840	825	816	834	854	884	935	938	982	977	974	980	975	970	964	960	966	962
	47	0	918	940	930	907	894	882	830	827	815	836	861	897	939	939	982	975	977	980	974	970	962	960	966	962
	52	0	918	940	927	907	894	882	830	830	817	839	864	899	940	939	981	972	979	977	972	970	962	960	966	962
	57	0																								
Faht...		89.2	89.3	89.3	89.2	89.0	89.0	89.0	89.2	89.6	89.9	90.2	90.4	90.6	90.6	90.4	90.3	90.1	90.2	90.2	90.2	90.1	90.3	90.3	90.0	
Attached Thermometer...																										
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	4749	4749	4729	4740	4747	4739	4747	4775	4804	4809	4799	4789	4799	4778	4751	4751	4775	4728	4713	4713	4713	4703	4720	4747
	3	0	49	49	29	40	47	39	47	75	04	09	99	89	99	78	51	51	75	28	13	13	13	03	20	47
	8	0	49	49	29	40	52	40	47	75	04	09	99	89	99	78	51	51	75	28	13	13	13	13	20	47
	13	0	49	49	29	40	52	40	47	75	04	09	99	89	99	78	51	51	75	28	13	13	13	13	20	47
	18	0	49	49	29	40	52	40	47	75	04	09	99	89	99	78	51	51	75	28	13	13	13	13	20	47
	23	0	49	49	29	40	52	40	47	75	04	09	99	89	99	78	51	51	75	28	13	13	13	13	20	47
	28	0	49	49	29	40	52	40	47	75	04	09	99	89	99	78	51	51	75	28	13	13	13	13	20	47
	33	0	49	49	50	40	52	40	47	75	04	09	99	89	99	78	51	51	75	43	13	13	13	13	20	47
	38	0	49	49	50	35	52	39	47	75	04	09	99	89	99	78	51	51	75	43	13	13	13	13	20	47
	43	0	49	49	50	35	52	39	47	75	04	09	99	89	99	78	51	51	75	43	13	13	40	13	35	43
	48	0	49	49	50	35	52	39	55	75	04	4799	99	89	99	78	51	51	75	43	13	13	46	13	35	43
	53	0	49	49	50	30	50	39	55	75	04	99	99	89	99	78	51	51	75	43	13	13	80	13	35	43
	58	0	49	49	50	30	50	39	55	75	04	99	99	89	99	78	51	51	28	43	13	13	80	13	35	43
Faht...		89.2	89.2	89.2	89.1	89.0	89.0	89.4	89.7	90.1	90.6	90.9	90.9	90.8	91.0	90.8	90.7	90.4								

ABSTRACT OF TERM-DAY OBSERVATIONS,
COMMENCING AT 10 P. M. OF 18TH JULY 1855, GOTTINGEN MEAN TIME.

DECLINATION.

m. s.

0 0

5 0

10 0

15 0

20 0

25 0

30 0

35 0

40 0

45 0

50 0

55 0

1645 1650 1651 1664 1678 1679 1669 1650 1635 1628 1618 1608 1620 1631

HORIZONTAL FORCE.

m. s.

2 0

7 0

12 0

17 0

22 0

27 0

32 0

37 0

42 0

47 0

52 0

57 0

Faht...

Attached Thermometer...

VERTICAL FORCE.

m. s.

3 0

8 0

13 0

18 0

23 0

28 0

33 0

38 0

43 0

48 0

53 0

58 0

Faht...

Attached Thermometer...

INDUCTION INCLINO-METER.

m. s.

0 20

5 20

10 20

15 20

20 20

25 20

30 20

35 20

40 20

45 20

50 20

55 20

Faht...

Attached Thermometer...

Barometer (uncorrected)= 29.0 +.

Attached Thermometer

Dry Thermometer (standard)....

Wet Do.

Cloudy sky in 8ths

WIND.

Force lbs

Direction •

REMARKS

ON THE

WEATHER.

WEDNESDAY, 18TH JULY 1855.

P.M.

10 11 12 13 14 15 16 17 18 19 20 21 22 23

1645 1650 1651 1664 1678 1679 1669 1650 1635 1628 1618 1608 1620 1631

868 862 868 870 844 789 750 694 596 614 649 668 826 910

4775 4751 4782 4755 4747 4767 4801 4801 4756 4792 4763 4791 4835 4784

1770 1771 1772 1783 1792 1795 1782 1769 1759 1754 1748 1740 1750 1761

In. In. In. In. In. In. In. In. In. In. In. In. In.

0.868 0.876 0.880 0.894 0.906 0.923 0.934 0.940 0.936 0.918 0.903 0.878 0.848 0.830

82.5 82.5 82.5 82.5 82.0 82.5 84.0 85.5 86.0 88.0 88.5 91.0 90.5 91.0

82.0 81.6 81.3 80.8 82.5 85.3 88.7 91.7 93.4 96.3 97.3 99.6 99.0 97.8

75.3 74.9 74.8 74.5 75.7 77.9 77.2 81.0 79.0 79.4 80.1 79.6 79.6 79.0

2 0 3 2 5 6 6 4 5 6 6 7 6 8

.00 .00 .00 .00 .00 .00 .00 .01 .00 .00 .00 .00 .00 .00

270 270 259 270 270 259 281 270 270 270 259 270 281 281

cu, hz
ny-clear.....
cu, hz.....
cu, cr-cu.....
do.
do.
do.
do.
do.
cu, cu-st, d-hz.....
do.
do.
do.
cu, cr-hz, nim.....

THURSDAY, 19TH JULY 1855.

Noon 1 2 3 4 5 6 7 8 9

1643 1631 1624 1627 1628 1633 1642 1650 1650 1660

940 920 856 858 850 866 898 915 960 1058

4753 4738 4707 4701 4722 4722 4750 4750 4812 4776

1773 1760 1752 1746 1748 1752 1760 1764 1765 1774

In. In. In. In. In. In. In. In. In. In.

0.826 0.830 0.846 0.890 0.892 0.908 0.908 0.892 0.868 0.868

90.5 90.0 89.0 88.0 86.5 85.0 85.0 84.0 83.0 83.0

96.7 96.0 91.7 84.7 83.6 82.3 82.6 83.0 82.0 82.5

78.8 80.0 79.4 78.0 77.0 77.0 78.0 79.5 79.8 78.0

7 6 7 8 8 7 8 8 6 6

.01 .00 .00 .55 .00 .00 .00 .00 .00 .00

247 247 180 247 315 191 180 180 225 281

do
cu, cr-hz, cr-st.....
cu, cr-hz, nim...
overcast-R.....
do. lt-R.....
ny-overcast.....
overcast.....
do.
cr, cr-hz, cu.
do.

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 31st AUGUST 1855, GOTTINGEN MEAN TIME.

Gottingen Mean Time.			FRIDAY, 31ST AUGUST 1855.														SATURDAY, 1ST SEPTEMBER 1855.									
			P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
		0 0	1660	1661	1667	1677	1691	1692	1682	1669	1654	1632	1616	1623	1630	1645	1660	1660	1654	1652	1651	1650	1650	1658	1660	1660
		5 0	60	61	68	78	92	92	82	69	52	31	16	23	31	46	60	60	54	52	51	50	50	58	60	60
		10 0	61	61	67	78	91	92	82	69	50	31	16	24	32	48	61	60	53	52	51	50	50	58	60	60
		15 0	61	62	68	78	92	92	80	69	49	30	15	26	33	48	63	60	52	52	51	50	50	58	60	60
		20 0	60	63	69	79	92	92	79	63	49	30	15	25	33	49	62	60	54	51	51	50	50	58	60	60
		25 0	60	63	70	80	90	89	79	61	48	28	16	24	35	49	62	60	55	51	50	50	51	58	60	60
		30 0	60	63	69	81	92	89	79	60	46	26	17	24	36	49	61	60	56	50	50	50	52	58	60	60
		35 0	60	63	69	84	92	89	79	59	46	22	17	23	38	51	60	58	56	50	50	50	53	58	60	60
		40 0	60	64	70	87	91	89	72	58	43	19	18	25	39	53	60	57	57	50	50	50	55	58	60	60
		45 0	60	66	70	84	91	89	71	57	40	19	19	25	40	55	60	55	55	50	50	50	56	59	60	60
		50 0	60	66	72	86	92	89	70	56	36	18	21	26	42	57	60	55	54	50	50	50	56	59	60	60
		55 0	60	67	73	90	92	87	69	56	33	17	22	28	43	58	60	55	52	50	50	50	57	59	60	60
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	940	930	927	925	910	882	858	832	836	841	880	909	900	910	909	931	945	964	963	961	948	938	948	966
		2 0	936	930	926	926	910	882	858	832	835	840	880	907	905	910	910	932	947	964	963	961	947	938	948	966
		7 0	932	930	926	926	906	882	858	832	834	840	879	905	909	910	920	932	947	964	963	961	946	938	949	967
		12 0	930	930	927	926	904	880	855	832	834	844	877	903	910	913	924	935	947	964	963	961	945	938	952	967
		17 0	934	930	928	926	902	880	849	829	834	848	875	900	910	911	928	937	950	964	963	961	944	938	953	967
		22 0	932	930	930	926	903	872	849	829	836	852	876	895	915	910	930	938	952	964	963	961	944	938	955	967
		27 0	930	930	930	926	900	872	849	832	840	853	878	890	913	910	930	940	955	964	963	961	942	939	957	967
		32 0	930	930	930	920	900	872	849	832	844	860	880	885	909	910	930	940	956	963	963	959	942	939	959	968
		37 0	930	928	931	920	892	869	839	834	846	862	885	888	907	908	930	941	958	963	963	958	941	940	960	969
		42 0	930	926	932	915	892	862	838	836	842	870	887	890	910	904	930	941	960	964	963	956	940	942	962	970
		47 0	931	927	930	917	890	862	838	837	838	875	890	892	911	904	931	941	964	964	962	954	939	944	963	970
		52 0	931	927	926	915	890	870	832	837	838	877	895	896	913	900	931	940	966	964	962	952	939	945	964	970
		57 0																								
Faht...		88.4	88.5	88.6	88.6	88.2	88.1	88.2	88.4	88.6	89.0	89.1	89.3	89.6	89.8	89.8	89.7	89.7	89.7	89.8	89.8	89.8	89.6	89.6	89.6	
Attached Thermometer...																										
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	4679	4700	4704	4705	4723	4762	4797	4867	4933	4934	4934	4904	4816	4769	4769	4750	4714	4660	4698	4689	4689	4690	4690	4715
		3 0	79	00	04	05	23	62	97	67	33	34	34	04	16	69	69	50	14	60	98	89	89	90	90	15
		8 0	79	00	04	05	23	62	97	67	33	34	34	04	16	69	69	50	14	60	98	89	89	90	90	15
		13 0	79	00	04	05	23	62	97	67	33	34	34	04	16	69	69	50	14	60	98	89	89	90	90	15
		18 0	79	00	30	05	30	62	97	67	33	34	34	04	16	69	69	50	14	60	98	89	89	90	90	15
		23 0	79	00	30	4692	30	62	4807	67	33	34	34	04	16	69	69	50	14	60	98	89	89	90	90	15
		28 0	79	00	24	92	30	70	07	82	32	34	34	04	00	69	69	50	14	60	98	89	89	90	90	15
		33 0	79	00	10	92	31	70	07	82	32	34	34	04	00	69	69	50	14	60	98	89	89	90	4715	15
		38 0	79	00	10	4718	31	70	07	82	32	34	04	04	00	69	69	50	14	60	98	89	89	90	15	15
		43 0	79	42	10	10	32	79	07	82	32	34	04	4867	00	69	69	50	14	60	98	89	89	90	15	15
		48 0	79	42	10	10	32	79	07	82	32	34	04	67	00	69	69	50	14	60	98	89	89	90	15	15
		53 0	79	42	4685	10	56	79	35	82	32	34	04	67	00	69	69	50	14	60	98	89	89	90	15	15
		58 0	79	24	85	14	56	79	35	82	32	34	04	67	00	69	69	50	14	60	98	89	89	90	15	15
Faht...		88.2	88.2	88.3	88.2	88.0	88.5	88.6	89.0	90.0	90.0	90.0	90.1	90.7	90.5	90.3	90.2	90.0	89.6	89.3	89.3	89.1	89.0	88.8	88.6	

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 19TH SEPTEMBER 1855, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 19TH SEPTEMBER 1855, GOTTINGEN MEAN TIME.																										
Gottingen Mean Time.			WEDNESDAY, 19TH SEPTEMBER, 1855.														THURSDAY, 20TH SEPTEMBER, 1855.									
			P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
		0 0	1685	1682	1695	1698	1720	1721	1703	1681	1665	1649	1650	1658	1672	1683	1688	1676	1675	1670	1671	1673	1674	1679	1680	1680
		5 0	86	83	95	1700	20	21	03	80	63	49	50	58	72	85	86	76	75	70	71	73	74	79	80	80
		10 0	86	84	95	02	20	21	01	79	61	49	50	59	73	85	86	76	75	70	71	73	74	80	80	80
		15 0	87	84	95	05	21	21	01	77	60	49	50	59	74	87	84	76	75	70	71	73	74	80	80	80
		20 0	87	85	94	06	22	21	1698	75	59	49	50	59	74	88	84	76	74	70	71	73	74	80	80	80
		25 0	87	88	94	08	22	21	98	74	57	50	50	60	74	88	83	76	73	70	72	73	75	80	80	80
		30 0	87	92	94	11	23	18	90	72	55	50	50	60	77	90	83	76	73	70	72	73	75	80	80	80
		35 0	86	91	94	12	23	17	89	72	52	50	52	62	77	90	80	76	73	70	72	73	75	80	80	80
		40 0	84	90	94	14	23	13	88	72	52	50	54	64	79	90	80	76	73	70	72	73	77	80	80	80
45 0	83	91	95	15	22	13	87	70	51	50	55	67	80	90	78	76	72	70	72	73	78	80	80	80		
50 0	82	92	97	16	21	09	86	69	50	50	56	70	82	90	78	76	72	70	72	73	78	80	80	80		
55 0	82	93	98	19	21	09	84	67	50	50	57	71	83	90	78	76	72	70	73	73	78	80	80	80		
MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
		2 0	880	878	870	870	850	834	782	750	742	785	859	878	900	888	900	902	914	899	904	914	918	911	912	899
		7 0	878	877	870	870	850	834	782	750	743	792	859	878	897	890	900	905	914	899	903	914	918	910	912	897
		12 0	877	878	866	867	850	838	788	747	744	799	860	879	895	892	900	907	915	899	903	914	918	910	912	900
		17 0	874	880	864	865	860	838	788	745	744	805	860	880	895	894	900	907	915	899	903	914	918	910	912	900
		22 0	875	882	863	863	861	838	779	745	745	809	863	882	893	894	900	907	912	899	903	916	918	912	912	900
		27 0	875	882	863	860	861	838	779	742	747	817	865	885	893	895	900	910	910	899	903	916	918	912	911	900
		32 0	873	882	863	854	858	838	763	741	749	828	868	886	890	895	900	910	904	900	905	916	919	915	909	900
		37 0	872	883	863	856	852	802	770	740	752	839	872	887	890	895	901	910	902	900	908	916	920	915	909	904
		42 0	876	883	863	857	852	798	765	740	758	850	877	888	890	895	901	910	902	899	910	916	920	915	906	906
47 0	879	879	863	857	840	798	762	740	766	852	880	889	888	897	902	910	902	899	912	916	917	915	904	910		
52 0	880	872	863	857	838	798	760	740	771	854	879	893	888	897	902	912	901	900	912	916	914	913	901	910		
57 0	878	876	867	852	831	798	755	741	779	857	878	897	888	898	902	912	900	902	914	916	914	913	900	910		
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
		3 0	4675	4675	4680	4672	4682	4762	4825	4852	4853	4830	4769	4712	4712	4698	4743	4734	4658	4639	4675	4685	4686	4637	4637	4637
		8 0	75	75	80	72	82	62	25	52	53	30	69	12	12	98	43	34	58	39	75	85	86	37	37	37
		13 0	75	75	62	72	82	93	25	52	53	30	69	12	12	98	43	34	58	39	75	85	86	37	37	37
		18 0	75	75	62	75	4700	93	25	52	53	30	69	12	12	98	43	34	58	39	75	85	86	37	37	37
		23 0	75	75	62	64	00	93	27	52	53	30	69	12	12	98	43	34	58	39	75	85	86	37	37	37
		28 0	75	75	62	64	00	95	27	52	53	30	69	12	12	98	43	34	58	39	75	85	86	37	37	37
		33 0	75	75	62	50	26	4802	30	52	53	30	69	12	12	98	43	34	58	39	75	85	86	37	37	37
		38 0	75	75	62	50	26	02	30	52	53	30	69	12	12	98	43	34	58	39	75	85	86	37	37	37
		43 0	75	75	62	43	26	06	30	52	53	30	69	12	12	98	43	34	58	39	75	85	86	37	37	37
48 0	75	75	62	64	26	06	30	52	53	30	69	12	12	98	43	34	58	39	75	85	86	37	37	37		
53 0	75	75	62	64	26	08	52	52	30	30	12	12	12	98	43	34	58	39	75	85	86	37	37	37		
58 0	75	75	72	70	26	08	52	52	30	30	12	12	12	98	43	34	58	39	75	85	86	37	37	37		
METEOROLOGICAL OBSERVATIONS.	INDUCTION INCLINO-METER.	m. s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.
		0 20	1780	1779	1783	1785	1804	1801	1789	1773	1760	1750	1752	1760	1772	1781	1783	1772	1772	1769	1770	1772	1773	1773	1775	1775
		5 20	80	79	82	86	04	01	89	71	60	50	52	60	72	83	83	72	72	69	70	72	73	73	75	75
		10 20	80	80	82	88	03	02	89	70	60	50	52	60	73	83	82	72	72	69	70	72	73	74	75	75
		15 20	80	80	81	89	05	02	89	70	59	50	52	60	75	84	80	72	72	69	70	72	73	74	75	75
		20 20	80	80	81	91	03	02	80	69	59	50	52	60	75	85	80	72	72	69	70	72	73	74	75	74
		25 20	80	80	81	93	03	02	80	69	58	50	52	60	75	85	80	72	71	69	70	72	73	74	75	74
		30 20	80	80	81	95	03	1793	79	67	58	51	52	62	76	85	78	73	70	70	70	72	73	74	75	74
		35 20	80	80	81	96	03	92	79	69	56	51	54	63	76	85	78	73	70	70	70	72	73	74	75	74
		40 20	80	80	81	97	03	97	79	67	55	52	56	63	79	86	75	73	70	70	70	72	73	75	76	74
45 20	80	80	82	98	02	97	78	65	53	52	58	64	80	85	75	73	70	70	70	72	73	75	76	74		
50 2																										

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 24TH OCTOBER 1855, GOTTINGEN MEAN TIME.

Gottingen Mean Time.		WEDNESDAY, 24TH OCTOBER, 1855.														THURSDAY, 25TH OCTOBER, 1855.																																																																																																																																																						
		P.M. 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Noon 1 2 3 4 5 6 7 8 9																																																																																																																																																																			
MAGNETICAL OBSERVATIONS.	DECLINATION.	m. s.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed. sed.	sed. 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ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 30TH NOVEMBER 1855, GOTTINGEN MEAN TIME.

ABSTRACT OF TERM-DAY OBSERVATIONS, COMMENCING AT 10 P. M. OF 30TH NOVEMBER 1855, GOTTINGEN MEAN TIME.																													
Gottingen Mean Time.			FRIDAY, 30TH NOVEMBER 1855.														SATURDAY, 1ST DECEMBER, 1855.												
			P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9		
MAGNETICAL OBSERVATIONS.	DECLINATION.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.			
		0	0	1659	1657	1662	1661	1668	1671	1675	1676	1672	1672	1682	1680	1680	1683	1688	1687	1689	1684	1685	1681	1680	1680	1680	1678		
		5	0	59	56	62	62	67	71	75	76	72	72	82	80	80	83	89	87	89	84	85	81	80	80	80	78		
		10	0	59	55	63	63	67	71	76	76	72	74	82	80	80	82	89	87	90	83	85	81	80	80	80	78		
		15	0	59	54	62	63	67	72	76	76	71	74	82	82	80	84	89	87	90	83	85	80	80	80	80	78		
		20	0	59	53	61	63	67	72	76	76	71	74	82	82	82	84	89	87	88	83	85	80	80	80	80	78		
		25	0	59	52	61	63	67	72	75	76	71	77	80	82	82	85	89	87	87	83	85	79	80	80	80	78		
		30	0	58	52	60	64	67	73	75	76	71	77	80	82	84	85	88	87	86	82	85	79	80	80	79	78		
		35	0	58	51	61	65	66	73	75	76	72	78	80	82	85	84	88	87	85	82	85	79	80	80	79	78		
		40	0	58	51	60	65	67	73	75	75	72	78	80	82	85	84	87	87	85	82	85	79	80	80	79	78		
		45	0	58	56	60	66	67	73	75	74	72	78	80	82	86	85	86	87	85	83	85	79	80	80	79	78		
		50	0	57	60	61	67	70	73	76	72	72	80	80	82	84	86	85	87	84	83	85	79	80	80	79	78		
		55	0	57	64	60	68	70	75	76	72	72	80	80	80	84	88	85	88	84	84	85	79	80	80	79	78		
		MAGNETICAL OBSERVATIONS.	HORIZONTAL FORCE.	m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
				2	0	650	650	658	654	664	643	620	596	589	592	602	609	618	610	620	632	661	662	659	667	668	667	660	660
				7	0	650	650	659	654	664	643	620	596	589	592	602	610	618	610	620	635	664	662	659	667	667	667	660	659
				12	0	650	650	660	653	665	643	619	595	588	592	600	610	618	610	622	638	666	665	660	667	667	667	660	659
				17	0	650	650	659	653	665	641	619	595	591	595	600	612	619	613	625	638	669	667	660	667	667	666	660	659
				22	0	649	652	657	660	664	641	619	590	592	595	600	612	620	615	625	641	667	669	661	667	667	666	660	658
27	0			649	653	655	660	663	641	605	590	592	595	604	612	616	619	628	645	667	667	662	667	667	665	660	658		
32	0			649	654	655	662	663	640	602	590	592	595	604	612	613	617	628	648	665	667	662	667	667	664	660	658		
37	0			649	658	655	662	663	640	601	590	598	600	607	612	611	617	629	650	662	667	663	668	667	664	660	658		
42	0			650	659	656	663	665	635	600	590	598	600	607	615	607	615	630	650	662	665	664	668	667	663	660	658		
47	0			650	662	657	663	665	635	600	589	595	600	608	615	603	615	630	650	662	663	666	668	667	662	660	656		
52	0			650	662	657	662	660	635	600	588	593	600	608	615	605	615	630	652	662	660	666	667	667	662	660	656		
57	0			650	660	655	662	650	625	600	588	593	600	608	615	608	615	628	657	662	660	667	667	667	661	660	655		
Faht...				80.8	81.0	81.1	81.1	81.1	81.0	80.7	80.6	81.0	81.0	81.1	81.2	81.5	81.3	81.1	81.1	81.3	81.5	81.5	81.6	81.5	81.6	81.5	81.4		
Attached Thermometer...				80.8	81.0	81.1	81.1	81.0	80.7	80.6	81.0	81.0	81.1	81.2	81.3	81.4	81.4	81.6	81.5	81.1	81.0	80.8	80.9	80.8	80.8	80.5	80.5	80.4	
MAGNETICAL OBSERVATIONS.	VERTICAL FORCE.			m.	s.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	scd.	
				3	0	4803	4775	4755	4762	4774	4779	4805	4844	4848	4827	4860	4813	4811	4790	4761	4742	4742	4701	4754	4747	4747	4708	4708	4708
				8	0	03	75	55	62	74	79	05	44	48	27	60	13	11	90	61	42	42	01	54	47	47	08	08	08
				13	0	03	75	55	62	74	79	05	44	49	27	60	13	13	90	61	42	42	01	54	47	47	08	08	08
		18	0	03	75	55	62	74	79	05	44	49	27	60	13	13	90	61	42	42	01	54	47	47	08	08	17		
		23	0	03	75	80	62	74	79	05	44	49	27	60	13	13	90	61	42	42	01	54	47	47	08	08	17		
		28	0	03	75	80	62	74	79	05	44	38	27	60	13	13	90	61	42	42	01	54	47	47	08	08	17		
		33	0	03	75	80	84	74	79	05	44	38	27	60	13	13	90	61	42	42	01	54	47	47	08	08	17		
		38	0	03	75	80	84	74	79	05	44	38	50	60	13	13	90	61	42	42	01	54	47	47	08	08	17		
		43	0	03	75	80	84	74	80	15	46	38	50	60	13	13	90	61	42	42	19	54	47	47	08	08	17		
		48	0	03	92	80	84	74	89	20	47	38	50	45	13	13	90	61	42	42	19	54	47	47	08	08	17		
		53	0	03	92	80	84	79	95	20	49	38	50	45	13	13	90	61	42	42	19	54	47	47	08	0			

ABSTRACT OF TERM-DAY OBSERVATIONS,

COMMENCING AT 10 P. M. OF 19TH DECEMBER 1855, GOTTINGEN MEAN TIME.

Gottingen Mean Time.			WEDNESDAY, 19TH DECEMBER, 1855.														THURSDAY, 20TH DECEMBER, 1855.									
			P.M.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Noon	1	2	3	4	5	6	7	8	9
DECLINATION.	m.	s.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.
	0	0	1667	1666	1668	1669	1675	1683	1690	1675	1654	1650	1658	1655	1658	1670	1678	1670	1678	1680	1683	1680	1679	1680	1675	1673
	5	0	67	64	69	69	75	85	90	75	54	50	58	55	58	70	78	70	78	80	82	80	80	80	75	73
	10	0	67	64	70	69	75	86	90	74	53	50	59	56	58	70	78	72	78	80	82	80	80	80	75	73
	15	0	67	63	70	70	75	86	90	73	53	50	59	58	58	72	78	72	78	80	81	80	80	80	75	73
	20	0	67	61	70	70	74	87	88	72	52	50	59	58	60	72	76	72	78	80	81	80	80	80	75	72
	25	0	67	61	70	71	73	88	88	70	52	50	58	57	60	72	76	74	78	81	80	80	80	79	75	72
	30	0	67	60	70	71	73	88	86	70	52	50	58	57	63	74	75	74	78	81	80	80	80	79	74	72
	35	0	67	62	70	72	73	89	84	70	52	52	58	56	65	74	75	75	78	83	80	79	80	77	74	72
	40	0	67	65	70	72	76	90	82	65	51	54	58	56	67	74	75	75	78	85	80	78	80	76	74	72
45	0	66	68	70	73	81	90	80	65	51	55	56	55	67	77	72	75	78	85	80	78	80	76	74	72	
50	0	66	68	69	74	82	90	78	65	51	57	55	55	69	77	72	75	77	85	80	78	80	76	73	72	
55	0	66	68	69	75	81	90	78	66	50	58	55	56	69	77	72	76	77	85	80	78	80	75	73	72	
HORIZONTAL FORCE.	m.	s.	545	550	545	537	540	536	517	479	484	502	512	530	570	582	570	566	570	592	584	583	579	580	561	558
	7	0	545	550	545	538	540	530	517	478	484	504	514	533	570	582	570	566	570	592	585	582	580	579	560	558
	12	0	545	550	545	539	540	526	517	478	488	506	516	537	569	584	570	566	572	592	586	581	580	578	560	557
	17	0	547	552	545	540	540	524	514	480	488	508	517	542	570	584	570	566	572	592	587	580	580	578	560	556
	22	0	547	548	545	540	541	522	506	486	491	510	518	548	570	584	570	566	572	592	587	580	580	578	560	556
	27	0	547	545	545	540	541	520	497	488	482	512	516	552	570	580	570	568	575	592	587	580	580	576	560	555
	32	0	547	545	544	539	542	520	492	488	482	512	514	556	573	580	570	568	577	590	588	580	578	575	560	554
	37	0	547	545	544	539	543	520	490	488	482	512	512	562	576	578	570	568	580	588	588	579	576	574	560	554
	42	0	547	544	541	538	545	520	486	477	498	512	512	566	578	575	568	568	582	586	588	578	575	572	559	553
	47	0	547	544	541	539	543	520	482	468	498	512	515	568	578	573	568	568	584	584	588	578	573	570	559	553
52	0	549	545	540	540	544	520	480	468	499	512	518	570	580	573	568	568	587	582	586	578	576	568	559	552	
57	0	549	547	540	540	542	520	479	468	501	512	524	570	580	571	565	568	587	582	585	578	578	566	558	551	
Faht...		77.7	77.6	77.8	77.5	77.7	77.5	77.8	77.8	77.7	77.9	78.0	78.0	78.2	78.4	78.3	78.0	78.2	78.3	78.3	78.3	78.3	78.0	77.9	77.8	
Attached Thermometer...		77.7	77.6	77.8	77.5	77.7	77.5	77.8	77.8	77.7	77.9	78.0	78.0	78.2	78.4	78.3	78.0	78.2	78.3	78.3	78.3	78.3	78.0	77.9	77.8	
VERTICAL FORCE.	m.	s.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.	sed.
	3	0	4605	4605	4610	4607	4600	4600	4655	4716	4804	4785	4759	4769	4719	4678	4635	4597	4616	4606	4597	4597	4597	4599	4599	4599
	8	0	05	05	10	07	00	12	55	16	04	85	59	69	19	78	35	97	16	06	97	97	97	99	99	99
	13	0	05	05	10	07	00	12	55	16	04	85	59	69	19	78	35	97	16	06	97	97	97	99	99	99
	18	0	05	05	10	07	00	12	55	60	04	85	59	69	19	79	35	97	16	06	97	97	97	99	99	99
	23	0	05	05	10	07	00	12	55	60	04	85	59	69	19	79	20	97	16	06	97	97	97	99	99	99
	28	0	05	4576	10	07	00	12	4710	60	08	85	59	69	19	79	20	97	16	06	97	97	97	99	99	99
	33	0	05	76	10	20	00	12	10	60	08	85	59	69	19	79	20	97	16	06	97	97	97	99	99	99
	38	0	05	76	10	20	00	12	10	60	08	59	59	69	4685	79	20	97	16	06	97	97	97	99	99	99
	43	0	05	76	10	03	00	12	16	60	00	59	59	69	85	79	20	97	05	06	97	97	97	99	99	99
48	0	05	76	4585	03	00	12	16	60	00	59	69	69	85	79	20	97	05	06	97	97	97	99	99	99	
53	0	05	76	85	03	00	12	16	60	00	59	69	69	85	79	20	97	05	06	97	97	97	99	99	99	
58	0	05	76	85	03	00	12	16	60	00	59	69	19	85	79	20	97	05	06	97	97	97	99	99	99	
Faht...		77.5	77.5	77.3	77.2	77.1	77.2	77.5	77.7	78.5	78.5	78.7	78.7	78.8	78.8	78.5	78.0	77.6	77.7	77.8	77.7	77.6	77.4	77.2	77.0	
Attached Thermometer...																										

Magnetometers.					Magnetometers.					Magnetometers.					Magnetometers.				
Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.
Jan. 1851 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Jan. 1851 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Jan. 1851 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Jan. 1851 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.
16 P.M. 5 41	1635	1630	1202	1365	17 A.M. 4 41	1662	1651	1433	1374	20 P.M. 0 56	1612	1624	1132	2185	20 P.M. 7 6	1645	1652	1742	1770
6 41	40	34	1063	947	5 1	60	50	1400	1220	1 1	19	26	1131	2235	11	49	56	1772	1823
5 1	46	36	1124	1183	5 1	56	45	1382	1188	6	20	28	1165	2244	21	53	59	1778	1852
7 1	42	34	1140	1275	6	55	44	1370	1240	11	19	28	1160	2244	26	54	60	1798	1887
11	40	30	1150	1273	11	58	46	1360	1317	16	20	29	1198	2169	31	57	62	1792	1865
21	34	28	1159	1280	16	63	50	1376	1426	21	17	27	1226	2120	36	61	63	1803	1874
31	34	28	1200	1380	21	64	50	1390	1457	26	15	26	1260	2008	41	58	62	1822	1847
41	30	26	1200	1469	26	64	50	1403	1457	31	14	25	1282	1801	46	56	61	1832	1800
51	32	27	1275	1620	31	63	50	1410	1457	36	19	29	1293	1718	51	53	60	1812	1765
8 1	40	30	1284	1680	36	60	50	1425	1457	41	19	29	1311	1710	56	52	59	1802	1664
11	40	32	1283	1610	41	59	48	1435	1480	46	20	30	1289	1778	8 1	53	60	1782	1616
21	47	38	1257	1550	46	60	50	1440	1445	51	22	32	1278	1769	6	55	61	1740	1459
31	50	40	1250	1550	51	60	50	1440	1445	56	23	33	1251	1801	11	59	62	1708	1394
41	40	35	1227	1341	56	60	50	1440	1468	2 1	26	36	1239	1769	16	62	67	1662	1248
46	37	34	1201	1394	6 1	60	50	1440	1468	6	25	35	1281	1668	21	60	65	1640	1184
51	35	32	1197	1394	11	60	50	1440	1500	11	24	34	1309	1620	26	60	65	1647	1206
56	36	32	1200	1368	21	56	46	1442	1398	16	22	33	1321	1610	31	62	68	1652	1217
9 1	38	33	1219	1401	31	50	40	1454	1280	21	19	31	1302	1598	36	63	66	1666	1280
6	39	33	1230	1428	41	40	32	1462	1286	26	15	26	1302	1389	41	62	66	1663	1318
11	40	35	1251	1474	51	35	30	1458	1286	31	18	29	1283	1360	46	61	65	1670	1318
21	38	32	1270	1490	7 1	34	30	1455	1270	36	19	30	1290	1418	51	61	65	1667	1305
31	38	32	1283	1490	—	—	—	—	—	41	19	30	1283	1660	56	63	66	1662	1305
41	40	32	1280	1452	20 A.M. 7 41	1614	1620	1170	1415	46	20	30	1298	1801	9 1	62	62	1669	1374
51	40	33	1271	1440	8 41	55	55	1155	1835	51	20	30	1322	1770	6	62	64	1672	1374
10 1	40	31	1260	1375	51	60	59	1158	1888	56	25	33	1375	1735	11	60	62	1662	1352
11	45	34	1268	1346	56	64	62	1160	1973	3 1	28	37	1410	1707	16	60	62	1660	1352
21	47	35	1279	1316	9 1	66	63	1145	1973	6	30	39	1425	1771	21	59	61	1644	1352
31	43	33	1286	1381	6	65	63	1138	1990	11	32	40	1431	1848	26	59	62	1656	1352
41	40	33	1300	1414	11	62	61	1110	2024	16	34	40	1450	1904	31	59	62	1663	1360
51	38	32	1309	1414	16	64	62	1115	2080	21	32	40	1471	1972	36	56	59	1648	1370
11 1	40	33	1292	1355	21	67	63	1117	2137	26	30	38	1445	2015	41	57	58	1652	1370
11	40	33	1235	1214	26	67	63	1115	2137	31	29	36	1437	2269	46	57	57	1660	1347
21	40	33	1239	1230	31	67	63	1115	2179	36	34	40	1471	2376	51	60	59	1629	1310
31	39	32	1240	1230	36	68	64	1120	2300	41	40	45	1516	2520	56	60	61	1640	1310
41	45	36	1250	1360	41	70	65	1145	2469	46	45	48	1572	2620	10 1	58	59	1589	1262
51	50	40	1250	1360	46	70	66	1138	2490	51	43	46	1582	2490	6	59	61	1545	1210
17 A.M. 0 1	52	42	1259	1360	51	70	68	1110	2538	56	42	45	1589	2449	11	56	58	1520	1180
11	54	44	1307	1497	56	70	69	1078	2604	4 1	38	43	1565	2326	16	57	60	1517	1065
21	56	45	1370	1710	10 1	71	68	1075	2775	6	47	51	1600	2529	21	54	57	1505	1065
26	58	46	1400	1747	6	70	66	1077	2855	11	60	62	1634	2645	26	52	55	1500	1007
31	58	46	1421	1760	11	70	67	1062	2900	16	68	70	1631	2352	31	52	58	1497	1061
36	58	46	1477	1985	16	70	68	1069	2947	21	69	70	1610	2277	36	51	60	1490	1107
41	66	50	1513	2085	21	71	65	1048	2972	26	64	66	1603	1996	41	51	62	1471	1252
46	70	52	1545	2197	26	71	64	1050	2980	31	50	52	1640	1905	46	53	61	1456	1304
51	68	52	1570	2216	31	70	63	1053	2998	36	45	50	1585	1854	51	50	59	1447	1297
56	70	55	1560	2216	36	68	61	1030	2960	41	50	51	1580	1794	56	47	56	1480	1415
1 1	72	56	1571	2150	41	65	58	1030	2887	46	48	50	1610	1817	11 1	47	54	1495	1177
6	70	55	1558	2104	46	63	57	1140	2887	51	43	48	1600	1884	6	48	54	1509	1112
11	69	54	1545	2177	51	60	56	1180	2887	56	41	47	1592	1841	11	50	55	1517	1047
16	70	54	1550	1999	56	50	50	1200	2800	5 1	47	50	1600	1947	16	51	56	1505	982
21	70	54	1550	1900	11 1	34	40	1342	2039	6	43	48	1598	1804	21	52	56	1500	982
26	68	53	1541	1819	6	29	36	1390	1970	11	40	48	1610	1804	26	50	55	1517	941
31	68	53	1538	1700	11	25	30	1404	1904	16	38	45	1621	1840	31	48	53	1523	972
36	70	54	1517	1604	16	19	28	1353	1954	21	40	43	1660	1878	36	46	51	1507	1057
41	70	54	1495	1497	21	17	27	1341	1954	26	35	41	1673	1912	41	45	50	1492	1202
46	70	54	1490	1452	26	16	25	1290	1960	31	37	42	1675	1893	46	44	50	1490	1242
51	69	53	1473	1410	31	14	21	1100	2018	36	39	44	1682	1952	51	43	50	1486	1242
56	68	53	1457	1367	36	12	22	1060	1981	41	52	58	1721	2099	56	43	50	1490	1237
2 1	66	52	1450	1367	41	12	21	1034	1936	46	56	62	1720	2080	21 A.M. 0 1	43	50	1492	1215
11	67	54	1447	1380	46	12	22	1072	1936	51	60	66	1718	2031	11	42	48	1490	1215
21	69	55	1432	1412	51	11	22	1100	1920	56	68	70	1713	2129	21	45	49	1490	1227
31	68	55	1417	1260	56	10	21	1136	1920	6 1	70	71	1684	1901	31	44	49	1485	1251
41	66	52	1400	1272	1 1	04	16	1142	1990	6	71	71	1685	1801	41	43	49	1472	1276
51	64	50	1420	1346	6	02	12	1100	2072	11	67	67	1686	1732	51	42	48	1468	1242
3 1	62	50	1430	1408	11	00	10	1062	2090	16	53	58	1659	1547	1 1	40	47	1459	1241
11	62	50	1426	1370	16	00	11	1090	2027	21	44	53	1640	1455	11	40	47	1455	1247
21	60	50	1423	1335	21	00	11	1128	1975	26	42	52	1689	1560	21	41	47	1450	1285
31	60	50	1420	1335	26	1595	10	1120	1898	31	41	50	1678	1602	31	41	47	1445	1316
41	60	50	1430	1378	31	92	08	1151	1680	36	48	52	1688	1637	41	42	47	1440	1347
51	63	52	1445	1450	36	97	11	1160	1638	41	44	52	1672	1581	51	42	47	1440	1347
4 1	67	55	1460	1588	41	1604	18	1109	1950	46	42	52	1688	1624	2 1	48	52	1490	1398
11	68	57	1460	1580	46	09	20	1110											

Magnetometers.					Magnetometers.					Magnetometers.					Magnetometers.				
Madras					Madras					Madras					Madras				
Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.
Jan. 1851					Feb. 1851					Sept. 1851					Sept. 1851				
d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.
21 A.M. 2 21	1645	1650	1480	1380	19 P.M. 0 11	1649	1649	1544	1386	4 A.M. 10 11	—	1642	1495	6248	4 P.M. 4 21	1647	1642	1988	4780
26	42	47	1473	1365	21	48	48	1520	1443	16	—	43	1510	6166	26	—	45	1980	4799
31	40	47	1470	1365	31	49	50	1512	1653	21	—	42	1493	6051	31	49	46	1976	4954
36	43	48	1476	1365	41	55	54	1491	1713	26	—	38	1400	6946	36	—	48	1949	4846
41	45	50	1480	1376	51	60	60	1530	1713	31	—	36	1388	7094	41	53	50	1922	4790
46	47	52	1483	1376	1 1	59	59	1529	1650	36	—	37	1319	7467	46	—	52	1920	4923
51	49	52	1489	1376	11	61	60	1500	1667	41	1653	38	1325	8610	51	58	53	1940	5027
3 1	50	53	1485	1376	21	60	60	1523	1573	46	—	35	1336	8166	56	—	53	1949	5150
6	50	54	1485	1370	31	60	60	1530	1498	51	51	32	1310	8499	5 1	60	53	1951	5125
11	47	51	1482	1370	41	57	55	1525	1449	56	—	30	1361	8488	6	—	53	1904	4863
16	45	50	1478	1370	51	56	53	1517	1480	11 1	55	42	1488	8767	11	64	58	1819	4586
21	44	50	1470	1355	2 1	55	53	1500	1512	6	—	41	1508	8731	16	—	60	1821	4531
26	44	50	1463	1355	11	52	52	1500	1475	11	53	38	1512	8745	21	67	60	1878	4660
31	44	49	1455	1355	21	50	50	1500	1380	16	—	38	1530	8850	26	—	58	1919	4976
36	43	48	1450	1355	31	50	50	1518	1400	21	50	36	1550	8917	31	63	56	1970	5280
41	44	49	1460	1385	41	50	50	1518	1313	26	—	37	1609	8808	36	—	52	1968	5379
46	46	49	1467	1385	51	47	50	1510	1400	31	45	32	1535	8944	41	65	58	1998	5510
51	45	50	1473	1360	3 1	46	50	1510	1400	36	—	38	1574	8930	46	—	56	2004	5470
56	45	50	1465	1360	—	—	—	—	—	41	57	42	1662	8664	51	63	52	2023	5452
4 1	42	48	1460	1360	July 1851					46	—	42	1680	8300	56	—	54	2037	5597
11	42	48	1460	1358	18 P.M. 3 41	1610	1601	1300	6752	51	48	39	1612	8318	6 1	66	54	2063	5652
21	42	47	1447	1358	4 41	30	20	1497	5878	56	—	38	1522	8515	6	—	54	2060	5588
31	40	45	1440	1358	51	32	21	1502	5790	P. M. 0 1	50	40	1525	8837	11	58	52	2000	5207
41	40	44	1433	1337	5 1	35	24	1517	5582	6	—	40	1502	9065	16	—	53	1998	5160
51	40	44	1433	1337	11	40	31	1490	5540	11	65	49	1619	9238	21	58	50	1950	4798
5 1	40	44	1433	1337	21	43	35	1495	5580	16	—	50	1688	9275	26	—	50	1922	4581
—	—	—	—	—	31	45	32	1470	5317	21	66	51	1770	9145	31	53	48	1912	4490
22 A.M. 7 41	1650	1650	1314	1304	41	43	30	1459	5018	26	—	50	1824	9219	36	—	48	1918	4490
8 41	80	73	1285	1724	51	44	31	1440	4977	31	73	57	1924	8760	41	51	46	1922	4515
51	80	74	1280	1785	6 1	49	34	1407	4790	36	—	62	1950	8333	46	—	42	1912	4472
9 1	80	76	1265	1899	11	50	33	1390	4874	41	87	71	1942	8046	51	46	41	1901	4431
11	80	76	1257	1890	21	51	32	1372	4936	46	—	68	1920	7461	56	—	41	1898	4370
21	80	77	1245	1873	31	51	32	1363	4954	51	75	64	1919	6983	7 1	37	38	1890	4234
31	78	75	1239	1974	41	50	31	1362	5003	56	—	64	1902	6828	6	—	37	1891	4222
41	73	70	1233	2015	51	50	31	1368	5106	1 1	77	66	1912	6615	11	34	33	1892	4222
51	71	70	1230	2015	7 1	50	30	1370	5100	6	—	66	1910	6449	16	—	32	1888	4194
—	—	—	—	—	11	47	28	1373	5098	11	78	65	1842	6567	21	34	34	1890	4249
Febr. 1851					21	41	26	1372	5038	16	—	65	1830	6567	26	—	32	1889	4224
6 A.M. 11 41	1613	1630	883	2647	31	40	22	1369	5016	21	77	67	1909	6400	31	31	30	1890	4194
P.M. 0 41	04	26	1057	2098	41	38	22	1372	4967	26	—	69	1998	5951	36	—	30	1890	4194
51	02	24	1067	1907	51	39	22	1368	4976	31	76	70	2054	5156	41	28	29	1886	4184
1 1	1599	22	1121	1753	8 1	39	21	1362	4920	36	—	68	2101	4940	46	—	30	1880	4184
6	96	20	1116	1704	11	38	21	1368	4945	41	77	70	2122	4475	51	27	28	1860	4142
11	93	19	1132	1640	—	—	—	—	—	46	—	64	1988	5047	56	—	28	1854	4120
16	92	18	1143	1540	Aug. 1851					51	71	60	1962	5802	8 1	27	28	1852	4118
21	90	17	1157	1502	26 A.M. 8 41	1660	1645	1210	5822	56	—	60	1854	6209	6	—	27	1842	4078
26	89	15	1161	1436	9 41	25	12	1150	6048	2 1	70	60	1859	6412	11	27	27	1846	4078
31	88	16	1179	1375	10 1	15	—	1											

Magnetometers.					Magnetometers.					Magnetometers.					Magnetometers.				
Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.
Sept. 1851. d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Sept. 1851. d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Sept. 1851. d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Sept. 1851. d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.
4 P.M. 10 31	1647	1640	1947	4975	5 A.M. 8 11	1665	1650	1528	4879	30 A.M. 7 37	—	1642	1645	7020	30 A.M. 10 47	—	1647	1677	6735
36	—	40	1970	4912	21	62	48	1492	4907	39	1677	55	1630	7014	51	—	40	1562	6271
41	45	40	1955	4944	31	56	45	1522	4907	41	1715	70	1780	7490	53	1667	41	1615	6952
46	—	40	1930	4831	41	55	43	1520	4993	43	—	73	1840	7817	55	—	40	1628	6550
51	46	40	1942	4650	9 11	47	40	1490	4940	45	10	65	1695	6986	57	—	42	1600	6620
56	—	40	1940	4517	41	43	32	1478	4905	47	—	65	1810	6954	59	—	40	1641	6775
11 1	44	39	1920	4502	10 11	37	30	1450	4886	49	1685	56	1825	7591	11 1	60	39	1553	6355
6	—	39	1907	4502	41	28	23	1472	4972	51	—	52	1811	7310	3	—	36	1562	6656
11	42	37	1899	4450	11 11	25	20	1488	4972	53	70	50	1845	6808	5	—	37	1542	6072
16	—	35	1897	4417	41	16	15	1477	4910	55	—	50	1915	6541	7	—	39	1573	6975
21	38	35	1850	4386	—	—	—	—	—	57	65	45	1865	6068	9	—	38	1560	6407
26	—	34	1803	4327	—	—	—	—	—	59	—	42	1880	6009	11	62	40	1540	6620
31	39	32	1810	4401	30 A.M. 2 41	1630	—	1400	5774	8 1	56	42	1910	6553	13	—	41	1530	6570
36	—	30	1813	4476	4 41	65	—	1613	7561	3	—	41	1955	6080	15	—	40	1590	6435
41	40	38	1820	4586	46	—	—	1618	7700	5	55	46	1960	6214	17	—	40	1560	6632
46	—	38	1851	4650	51	68	1650	1625	7808	7	—	43	1955	6077	19	—	40	1689	6420
51	42	38	1867	4617	56	—	50	1638	7980	9	61	46	2000	5929	21	63	43	1719	6632
56	—	37	1860	4617	5 1	70	50	1650	8038	11	—	43	2020	5875	23	—	45	1742	6437
5 A.M. 0 1	43	38	1871	4700	6	—	52	1658	8200	13	59	43	2011	5959	25	—	43	1740	6332
6	—	38	1880	4759	11	72	54	1666	8052	15	—	41	1998	6007	27	—	42	1759	6632
11	45	40	1861	4800	16	—	51	1675	7930	17	52	46	1972	6147	29	—	40	1762	6632
16	—	43	1830	4657	21	68	48	1680	7706	19	—	43	1977	5834	31	62	41	1743	6730
21	50	45	1795	4790	26	—	—	1687	7585	21	65	47	1955	5956	33	—	42	1745	6750
26	—	45	1720	4397	31	62	41	1692	7480	23	—	46	1946	5976	35	—	42	1750	6867
31	57	47	1699	4311	36	—	—	1708	7300	25	65	47	1936	6078	37	—	39	1700	6695
36	—	49	1675	4217	41	65	42	1722	7127	27	—	49	1922	6470	39	—	39	1680	7062
41	65	50	1662	4135	46	—	—	1700	7100	29	64	50	1905	6625	41	60	39	1682	7052
46	—	51	1660	4017	51	78	50	1692	7025	31	65	46	1900	6076	43	—	38	1702	6775
51	68	52	1660	3933	56	—	—	1685	6970	36	—	49	1884	6115	45	—	38	1686	6945
56	—	55	1647	4125	6 1	90	60	1660	6995	41	75	49	1899	6151	47	—	38	1672	6945
1 1	64	53	1640	4199	6	—	55	1632	7200	46	—	49	1840	6456	49	—	35	1616	6885
6	—	50	1631	4241	11	60	30	1557	5030	51	78	50	1787	6850	51	58	35	1598	7062
11	57	47	1660	4170	13	—	27	1390	4036	56	—	45	1771	6891	53	—	36	1615	6975
21	53	49	1675	4080	15	—	23	1373	—	9 1	80	47	1754	6655	55	—	38	1622	6842
31	45	44	1689	4100	17	—	17	1002	760	6	—	50	1680	6500	57	—	38	1628	6842
41	42	40	1692	4297	19	—	15	972	407	11	72	50	1624	7050	59	—	38	1634	6775
51	45	42	1705	4417	21	—	10	930	12	16	—	45	1665	6657	P.M. 0 1	58	37	1632	6532
2 1	50	44	1717	4550	23	—	10	1014	470	21	74	49	1558	6461	6	—	35	1618	6672
11	54	46	1740	4682	25	—	10	1098	885	26	—	54	1648	6302	11	58	38	1583	6493
21	55	48	1740	4682	27	—	10	1115	908	31	70	64	1772	6670	16	—	40	1630	6554
31	55	49	1743	4654	29	—	08	1140	1201	36	—	61	1926	6696	21	57	42	1700	6056
41	57	50	1745	4649	31	20	03	908	—	41	84	60	2011	6455	26	59	42	1680	6460
51	58	50	1748	4700	33	—	00	1040	1032	43	—	56	1937	6526	31	60	40	1678	6352
3 1	58	50	1752	4790	35	—	1598	1098	503	45	80	52	1830	6295	36	64	42	1703	6491
11	58	50	1738	4665	37	—	92	1110	783	47	—	54	1765	6981	41	65	48	1743	6635
21	55	46	1700	4528	39	—	87	1192	825	49	74	50	1790	6556	46	65	44	1756	6582
31	52	42	1685	4484	41	1597	87	1217	1984	51	—	51	1775	6910	51	64	44	1733	6754
41	49	39	1678	4484	43	—	88	1285	2038	53	78	52	1758	6565	56	64	42	1740	6547
51	48	40	1670	4435	45	99	90	1330	2500	55	—	54	1778	6570	1 1	66	45	1762	6725
4 1	47	40	1656	4435	47	—	92	1300	3626	57	—	53	1850	6410	11	63	43	1780	6116
11	47	40	1660	4480	49	—	96	1388	5038	59	—	48	1800	5740	21	65	45	1760	6454
21	48	40	1660	4612	51	1600	98	1500	5719	10 1	74	50	1771	6980	31	68	48	1763	6148
31	50	40	1664	4612	53	—	99	1565	5875	3	—	47	1771	6185	41	68	48	1770	6147
41	50	40	1668	4681	55	—	1606	1580	6000	5	—	49	1650	6565	51	69	49	1757	5911
51	51	40	1675	4700	57	—	13	1616	6157	7	—	48	1663	6414	2 1	71	51	1740	5724
5 1	51	42	1687	4785	59	—	15	1640	6194	9	—	57	1732	6652	11	73	51	1732	5593
11	52	43	1687	4785	7 1	27	20	1655	6113	11	70	51	1740	6006	21	74	52	1730	5790
21	53	45	1687	4736	3	—	18	1654	6070	13	—	53	1727	6812	31	74	52	1722	5707
31	55	48	1675	4680	5	—	20	1700	6097	15	—	54	1740	6250	41	77	55	1730	5749
41	58	50	1660	4616	7	29	20	1650	5743	17	—	50	1670	6385	51	79	56	1738	5734
51	58	50	1645	4587	9	—	21	1702	5968	19	—	49	1672	6748	3 1	81	58	1735	5657
6 1	61	52	1640	4566	11	35	26	1712	6364	21	70	51	1681	6615	11	87	62	1750	5789
11	63	53	1637	4608	13	—	24	1705	6210	23	—	53	1665	6615	21	85	60	1741	5789
21	65	56	1640	4656	15	40	31	1711	6134	25	—	50	1755	6802	31	83	60	1750	5664
31	70	58	1638	4600	17	—	30	1740	5883	27	—	51	1660	6628	41	95	69	1773	5947
41	73	60	1630	4692	19	40	31	1670	6053	29	—	49	1708	6578	51	1700	72	1790	6086
51	75	62	1616	4730	21	—	30	1587	5913	31	70	48	1658	6741	4 1	1692	67	1802	5570
7 1	75	60	1610	4752	23	44	29	1650	5516	33	—	47	1720	6780	11	86	60	1736	5173
11	75	60	1588	4619	25	—	33	1680	6271	35	—	45	1660	6400	21	90	63	1742	5452
21	74	60	1584	4710	27	47	34	1791	5664	37	—	50	1655	7125	31	97	69	1774	5869
31	72	59	1580	4783	29	—	31	1772	6497	39	—	44	1710	6615	41	90	60	1742	5290
41	71	59	1568	4863	31	44	35	1615	6505	41	60	46	1680	6740	51	86	60	1779	5600
51	72	59	1552	4930	33	—	40												

Magnetometers.					Magnetometers.					Magnetometers.					Magnetometers.				
Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.
Sept. 1851 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Oct. 1851 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Nov. 1851 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Jan. 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.
30 P.M. 5 21	1672	1650	1749	5310	29 P.M. 3 26	1680	1650	1640	5285	22 P.M. 2 1	1692	1641	1330	-1039	20 P.M. 0 46	1719	1686	1311	4618
31 70	50	1732	5216		31 80	50	1642	5285		6 96	42	1351	-977		51 20	90	1328	4700	
41 70	48	1712	5137		41 80	48	1630	5271		11 97	43	1370	-977		56 18	88	1350	4631	
51 69	47	1704	5138		51 77	44	1638	5148		16 98	44	1381	-984		1 14	84	1352	4688	
6 1 69	47	1700	5138		4 1 76	42	1647	5148		21 99	45	1390	-991		6 14	84	1448	4568	
11 67	44	1693	5087		11 75	41	1650	5258		26 95	42	1406	-958		11 20	90	1498	4639	
21 67	44	1701	5251		21 77	42	1623	5180		31 97	43	1410	-940		16 22	90	1482	4680	
31 68	45	1704	5196		31 80	45	1625	5087		36 97	43	1415	-940		21 20	90	1462	4700	
41 66	43	1699	5163		41 80	47	1624	5012		41 1700	49	1408	-911		26 16	84	1460	4661	
51 66	43	1699	5219		51 79	48	1629	4901		51 00	49	1418	-891		31 10	80	1446	4706	
7 1 67	43	1700	5274		5 1 78	46	1600	4834		3 1 00	48	1430	-891		36 08	80	1400	4680	
11 68	44	1700	5234		11 78	47	1603	4800		11 1699	48	1442	-891		41 02	74	1360	4736	
21 70	45	1701	5234		21 75	43	1607	4800		21 98	47	1450	-891		46 1690	66	1360	4709	
31 76	49	1700	5250		31 76	44	1596	4752		31 98	46	1447	-850		51 88	62	1350	4686	
41 68	46	1682	5140		41 81	47	1644	4760		41 95	44	1435	1864		56 90	64	1380	4691	
51 69	47	1692	5140		46 83	47	1630	4700		51 92	42	1430	1904		2 1 84	60	1370	4691	
8 1 70	46	1698	5307		51 81	46	1620	4730		4 1 92	41	1419	1896		6 80	60	1367	4691	
11 68	44	1685	5252		56 79	43	1600	4795		11 92	41	1389	1848		11 80	56	1377	4626	
21 70	45	1699	5322		6 1 80	44	1592	4704		21 89	39	1368	1775		21 78	56	1396	4585	
31 69	44	1708	5322		6 79	43	1587	4704		31 84	34	1342	1723		31 74	50	1358	4560	
41 67	42	1693	5289		11 78	42	1580	4704		41 80	27	1337	1707		41 70	50	1338	4554	
51 70	45	1706	5372		16 77	41	1583	4704		51 76	23	1340	1707		51 68	48	1318	4554	
9 1 69	44	1702	5290		21 76	42	1587	4704		5 1 71	20	1348	1707		3 1 67	47	1298	4554	
11 70	44	1700	5209		26 77	43	1585	4690		11 70	21	1358	1813		11 67	46	1284	4554	
21 69	44	1695	5176		31 78	44	1584	4674		21 78	27	1342	1841		21 67	44	1270	4554	
31 69	44	1689	5250		36 76	43	1580	4674		31 82	31	1331	1835		31 64	42	1278	4554	
41 70	44	1677	5319		41 75	42	1569	4674		41 82	29	1353	1820		41 68	47	1274	4605	
56 70	43	1673	5319		46 74	42	1570	4660		51 82	29	1372	1872		51 64	46	1296	4605	
10 11 68	42	1667	5319		51 74	41	1571	4650		6 1 77	24	1400	1878		4 1 64	44	1298	4605	
26 67	41	1660	5319		56 74	42	1571	4672		11 74	22	1414	1884		11 66	44	1310	4605	
41 68	41	1660	5287		7 1 73	42	1572	4674		21 76	24	1432	1902		21 68	48	1330	4674	
56 68	41	1662	5287		11 73	42	1569	4674		31 77	25	1449	1979		31 70	49	1340	4674	
11 11 67	41	1657	5287		21 72	41	1562	4629		41 78	26	1450	2000		41 70	48	1360	4670	
	—	—	—		31 73	42	1563	4660		51 78	26	1450	2000		51 70	47	1365	4670	
Oct. 1851					41 72	42	1542	4595		7 1 79	29	1447	2047		5 1 68	44	1380	4670	
29 A.M. 10 41	1660	1631	1270	6470	51 72	42	1527	4488		11 80	30	1454	2080		11 68	46	1390	4609	
11 41	1710	70	1705	5657	8 1 71	39	1531	4497		21 81	31	1466	2032		21 68	46	1386	4609	
46 07	68	1719	5680		11 72	39	1538	4585		31 81	31	1472	2032		31 68	47	1383	4642	
51 09	68	1732	5703		21 72	39	1532	4592		41 82	31	1480	2039		41 70	48	1389	4538	
56 10	70	1740	5718		31 71	38	1533	4747		51 81	30	1473	2029		51 70	48	1389	4501	
P. M. 0 1	09	70	1760	5402	41 72	39	1531	4717		8 1 83	29	1471	1995		6 1 68	46	1386	4470	
6 14	77	1798	4985		51 72	38	1540	4771		11 82	29	1469	1970		11 67	45	1384	4441	
11 16	78	1814	4736		9 1 72	38	1538	4701		21 84	31	1464	1950		21 71	49	1339	4314	
16 10	73	1800	4700		11 72	37	1520	4658		31 85	31	1461	1925		31 72	50	1288	4300	
21 08	70	1792	4725		21 70	35	1511	4612		41 86	31	1442	1888		41 74	51	1279	4228	
26 10	72	1780	4780		31 70	34	1510	4612		51 85	30	1447	1888		51 75	52	1271	4228	
31 10	74	1767	4933		41 70	38	1508	4642		9 1 80	28	1435	1870		7 1 75	52	1271	4241	
36 10	74	1788	4900		51 69	34	1489	4653		11 76	26	1428	1857		11 73	50	1264	4274	
41 10	74	1812	4882		10 1 68	34	1487	4640		21 73	23	1400	1718		21 70	48	1260	4315	
46 10	73	1825	4865		11 68	34	1490	4625		31 74	24	1387	1685		31 71	49	1278	4304	
51 10	73	1813	4821		21 68	32	1492	4650		41 76	25	1384	1685		41 70	48	1292	4292	
56 10	73	1818	4764		31 68	31	1490	4686		51 80	27	1380	1750		51 70	48	1307	4328	
1 1 10	71	1800	4851		41 68	30	1488	4687		10 1 80	29	1380	1786		8 1 70	48	1318	4353	
11 07	69	1766	4890		56 68	30	1486	4687		11 80	30	1382	1786		11 72	50	1329	4353	
21 08	70	1745	4703		11 68	30	1484	4690		21 78	27	1382	1840		21 72	50	1300	4460	
31 10	72	1750	4931		26 68	30	1482	4706		31 79	27	1385	1840		31 72	50	1285	4100	
41 10	74	1760	4841		41 68	30	1480	4724		41 80	29	1386	1841		41 70	48	1262	4100	
51 13	77	1758	4949		56 60	30	1482	4740		51 80	30	1386	1841		51 68	47	1250	4100	
2 1 14	76	1740	5116		30 A.M. 0 11	60	30	1489	4782	11 1 80	30	1385	1841		9 1 70	48	1277	4348	
11 10	73	1748	4903		26 54	29	1497	4806			—	—	—		11 70	50	1295	4495	
16 06	70	1730	5083		41 50	28	1500	4849		Jan. 1852					21 72	50	1310	4495	
21 05	70	1725	5166		56 53	29	1477	4849		20 A.M. 10 41	1662	1640	780	5199	31 72	50	1320	4495	
26 04	70	1720	5166		1 11 58	30	1480	4849		11 41	98	70	1190	4592	41 72	51	1332	4495	
31 02	68	1704	5166		26 60	30	1480	4835		51 1700	70	1184	4694		51 74	52	1301	4480	
36 00	64	1688	5166		41 60	30	1472	4835		P. M. 0 1	1692	74	1199	4694	10 1 75	54	1288	4480	
41 1698	62	1665	5121		56 59	30	1472	4835		6 1710	78	1250	4613		11 74	54	1260	4480	
46 95	58	1650	5106		2 11 58	29	1471	4800		11 10	80	1260	4598		21 78	52	1274	4480	
51 90	56	1647	5084			—	—	—		16 14	80	1278	4566		31 78	52	1290	4301	
56 86	54	1650	5084		Nov. 1851					21 08	78	1290	4579		41 76	52	1270	4301	
3 1 86	53	1650	5138		22 P.M. 0 41	1668	1622	1160	1567	11 1 80	84	1330	4547		11 76	50	1272	4285	
6 83	53	1653	5150		1 41 90	39	1319	-1102		26 14	85	1345	4562		11 77	50	1284	4285	
11 81	53	1645	5206		46 91	40	1309	-1102</											

Magnetometers.					Magnetometers.					Magnetometers.					Magnetometers.				
Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras. Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.
Jan. 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Feb. 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Feb. 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Feb. 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.
20P.M. 11 41	1680	1653	1309	4345	16A.M. 7 51	1634	1600	1434	4305	16P.M. 6 1	1684	1637	1372	4680	18P.M. 4 56	1718	1659	1512	5950
51	80	53	1310	4345	8 1	48	10	1399	4305	11	85	39	1375	4680	5 1	20	61	1600	5990
21A.M. 0 1	80	53	1316	4345	11	44	12	1388	4028	21	83	37	1379	4700	6	25	65	1645	5990
11	80	53	1319	4345	21	42	10	1388	3975	31	82	37	1385	4685	11	19	61	1690	5800
21	80	52	1321	4317	31	44	12	1420	3706	41	83	37	1390	4705	16	16	58	1715	5592
31	80	52	1325	4317	41	48	12	1448	3942	51	85	39	1387	4705	21	17	60	1712	5592
41	80	52	1328	4317	51	52	16	1440	3877	7 1	84	37	1389	4705	26	15	58	1702	5500
51	78	51	1320	4317	9 1	52	18	1420	3970	31	12	54	1740	5500	31	12	54	1740	5500
1 1	77	51	1314	4317	11	59	24	1450	3970	36	10	51	1759	5900	36	10	51	1759	5900
11	75	51	1309	4300	21	64	26	1494	3905	41	08	49	1792	5720	41	08	49	1792	5720
21	71	50	1296	4300	31	68	28	1501	4039	46	24	66	1785	5600	46	24	66	1785	5600
31	64	48	1270	4300	41	68	28	1447	4377	51	32	75	1759	5302	51	32	75	1759	5302
41	60	46	1261	4300	51	70	30	1490	4200	56	58	99	1752	5150	56	58	99	1752	5150
51	59	45	1250	4241	10 1	70	30	1499	4200	6 1	48	90	1725	5005	6 1	48	90	1725	5005
2 1	57	40	1241	4241	11	71	31	1462	4359	6	38	80	1708	4802	6	38	80	1708	4802
11	56	38	1229	4204	21	67	28	1433	4495	6	54	15	980	4002	11	42	86	1730	4900
21	54	36	1210	4204	31	74	29	1358	4692	11	62	20	1127	4774	16	60	1704	1740	5102
31	52	35	1200	4204	41	72	32	1420	4402	16	75	30	1230	7527	21	80	1678	1760	4804
41	50	32	1178	4080	51	74	35	1486	4200	21	97	41	1345	7710	26	70	70	1740	4750
51	50	33	1184	4080	11 1	76	38	1527	4000	26	1713	50	1210	8690	31	42	60	1725	4602
3 1	54	36	1188	4124	6	70	34	1540	3744	31	21	54	1165	9050	36	10	52	1705	4500
11	58	38	1190	4205	11	70	33	1508	3947	36	52	82	1200	10442	41	1692	44	1733	4438
21	54	34	1193	4175	16	66	30	1527	3895	41	60	86	1145	10039	46	93	44	1795	4499
31	51	31	1197	4188	21	62	28	1545	3680	46	83	1700	1255	9810	51	70	22	1882	4602
41	51	31	1202	4209	26	60	27	1540	3680	51	1807	20	1497	10040	56	1705	56	1895	5310
51	54	33	1216	4280	31	58	25	1537	3797	53	1773	00	1510	9305	7 1	1690	44	1845	5162
4 1	57	37	1230	4352	36	59	25	1512	3850	55	58	1683	1450	9127	6	66	27	1924	5705
11	54	33	1218	4290	41	60	25	1455	3989	57	60	90	1650	8509	11	82	38	1800	5502
21	51	32	1200	4218	46	65	27	1440	3995	59	50	80	1699	7832	16	1709	50	1753	5000
31	52	32	1204	4200	51	67	29	1429	4107	1 1	42	81	1850	6913	18	12	60	1705	4900
41	53	33	1208	4186	56	68	30	1420	4213	3	45	80	1780	6540	20	20	66	1600	4500
51	52	32	1212	4186	P.M. 0 1	65	30	1437	4280	5	30	77	1855	5716	22	09	50	1505	4249
5 1	52	32	1213	4186	6	61	27	1450	4315	7	30	77	1875	5201	24	1673	40	1542	3900
11	53	33	1212	4186	11	59	26	1457	4315	9	29	72	1840	5266	26	91	56	1450	3460
	—	—	—	—	21	62	28	1430	4260	11	28	76	1890	4974	28	85	50	1413	3250
					31	65	29	1452	4260	16	20	70	1905	4851	30	89	50	1502	3405
23P.M. 4 41	1680	1655	1190	4148	41	70	30	1473	3954	21	15	62	1880	4344	32	98	59	1452	3602
5 41	70	48	1312	4400	51	72	31	1480	3990	26	10	60	1890	4232	36	1712	62	1605	4102
51	65	45	1325	4386	1 1	74	33	1500	3990	31	05	57	1881	4085	38	19	69	1740	5140
6 1	62	42	1340	4374	11	76	35	1498	3990	36	1699	54	1840	4085	40	09	60	1790	—
11	62	41	1357	4371	21	80	37	1482	4192	41	91	54	1850	4014	42	05	60	1805	5540
21	70	48	1360	4398	31	82	38	1469	4241	46	95	56	1878	4105	46	10	62	1882	5981
31	69	48	1372	4365	41	87	42	1380	4648	51	1700	57	1910	4186	51	18	63	1980	6025
41	70	48	1399	4384	46	90	44	1362	4690	56	03	60	1850	4710	56	22	68	2118	6487
51	73	52	1408	4425	51	92	45	1330	4851	2 1	09	64	1811	5057	8 1	40	80	2150	6554
7 1	80	53	1408	4410	56	93	45	1352	4917	6	05	61	1770	4620	6	50	90	2022	5989
11	80	54	1430	4415	2 1	90	42	1367	4978	11	11	65	1702	4870	11	51	92	1972	5527
21	79	53	1433	4400	6	87	40	1372	4938	16	08	62	1790	4502	16	50	89	1920	5100
31	72	51	1452	4358	11	86	40	1370	4938	21	10	63	1920	4410	21	38	80	1890	4828
41	69	48	1472	4365	16	82	38	1382	4910	26	02	60	2040	4017	26	32	78	1860	4745
51	71	49	1476	4385	21	80	35	1340	4961	31	1698	58	1970	4152	31	30	77	1868	4794
8 1	70	48	1479	4367	26	75	32	1310	4890	36	90	52	1912	4380	36	30	74	1890	4931
11	70	48	1482	4367	31	77	33	1327	5020	41	82	46	1870	4821	41	28	72	1898	4912
21	68	46	1480	4300	36	79	35	1305	5078	46	75	38	1840	4750	46	30	70	1890	4912
31	65	44	1477	4300	41	80	35	1285	5400	51	78	40	1821	4870	51	28	72	1887	4917
41	60	41	1460	4285	51	79	34	1272	5367	56	70	30	1811	4815	56	27	73	1880	4917
51	60	41	1458	4285	3 1	78	33	1309	5396	3 1	70	28	1770	4970	9 1	22	70	1910	4917
9 1	60	40	1457	4285	11	80	33	1325	5487	6	68	27	1740	5010	6	19	68	1858	4765
	—	—	—	—	21	80	33	1332	5487	11	67	25	1702	5057	11	19	68	1847	4750
Feb.					31	80	33	1358	5292	16	65	25	1685	5057	16	10	62	1800	4600
16A.M. 4 41	1623	—	1182	4511	41	76	32	1374	5215	21	67	26	1677	4910	21	01	57	1763	4380
5 41	12	—	1304	4900	51	73	31	1380	5215	26	70	28	1660	4910	26	00	52	1700	4343
51	17	1580	1322	4964	4 1	72	29	1362	5172	31	72	30	1652	4887	31	00	52	1700	4343
6 1	20	84	1339	5020	11	70	27	1353	4902	36	71	30	1640	4850	36	1696	50	1580	3988
11	20	83	1340	5020	21	68	27	1352	4902	41	70	30	1620	4813	41	1700	54	1580	3725
21	22	84	1351	5020	31	70	29	1350	4902	46	68	29	1617	4813	46	10	60	1568	4203
31	20	84	1379	4926	41	70	29	1360	4978	51	68	27	1610	4916	51	16	64	1580	4240
41	10	80	1400	4916	51	68	27	1368	4978	56	66	26	1610	4968	56	10	60	1570	4290
51	09	78	1391	4916	5 1	70	28	1370	4957	4 1	65	25	1606	4968	10 1	24	70	1630	4392
7 1	13	81	1410	4916	11	72	30	1374	4852	11	68	27	1602	4950	6	10	60	1666	4209
11	20	89	1450	4807	21	74	32	1374	4700	21	71	28	1588	4907	11	10	60	1726	4695
21	10	80	1432	4484	31	75	32	1360											

Magnetometers.					Magnetometers.					Magnetometers.					Magnetometers.				
Madras					Madras					Madras					Madras				
Mean Time.	Declination.	Induction Inclination.	Horizontal Force.	Vertical Force.	Mean Time.	Declination.	Induction Inclination.	Horizontal Force.	Vertical Force.	Mean Time.	Declination.	Induction Inclination.	Horizontal Force.	Vertical Force.	Mean Time.	Declination.	Induction Inclination.	Horizontal Force.	Vertical Force.
Feb. 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Feb. 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Feb. 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	Feb. 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.
18 P.M. 10 31	1700	1650	1730	4800	19 A.M. 7 21	1666	1622	1370	4829	20 A.M. 2 41	1673	—	1472	4430	20 P.M. 0 6	1710	1660	1769	4840
36	02	51	1746	4800	31	72	24	1364	4934	4 41	70	1636	1850	4724	11	05	57	1795	4802
41	04	55	1718	4842	41	70	25	1348	4978	46	70	35	1861	4724	16	02	55	1820	4705
46	08	58	1700	4842	51	74	26	1334	4978	51	68	35	1869	4724	21	10	60	1857	4621
51	00	52	1710	4868	8 1	79	30	1327	5070	56	66	34	1852	4724	26	12	61	1870	4621
56	1698	50	1700	4900	11	80	30	1321	5122	5 1	66	34	1850	4770	31	13	61	1882	4570
11 1	90	42	1690	4900	21	87	33	1314	5166	6	65	32	1848	4770	36	19	64	1860	4743
6	92	44	1685	4900	31	89	37	1309	5027	11	65	32	1846	4770	41	18	65	1850	4821
11	90	40	1672	4808	41	89	38	1303	5218	16	65	32	1844	4770	46	20	67	1862	4821
16	90	40	1660	4808	51	90	39	1308	5500	21	65	30	1843	4770	51	20	68	1880	4886
21	96	48	1674	4605	9 1	89	38	1287	5520	26	64	28	1840	4808	56	20	67	1877	4932
26	1700	50	1689	4605	11	90	39	1255	5395	31	64	27	1836	4808	1 1	21	67	1860	4966
31	1694	47	1660	4605	21	88	36	1244	5432	36	62	25	1821	4808	6	20	67	1886	4967
36	98	50	1650	4605	31	82	34	1228	5432	41	60	23	1819	4956	11	20	67	1876	4967
41	98	50	1648	4530	41	82	34	1240	5452	51	60	22	1805	4956	16	21	68	1860	4991
46	1700	52	1648	4530	51	82	34	1224	5530	6 1	59	18	1749	4850	21	19	68	1836	5014
51	00	52	1640	4530	10 1	80	30	1250	5417	11	58	08	1720	4645	26	17	67	1805	5040
56	1698	50	1650	4554	11	75	28	1252	5407	21	53	02	1692	4505	31	18	67	1815	5127
19 A.M. 0 1	96	49	1640	4554	21	75	29	1257	5417	31	57	10	1710	4591	36	20	68	1832	5070
6	90	42	1644	4554	31	75	28	1280	5417	41	60	12	1700	4656	41	17	62	1760	5375
11	1700	50	1630	4554	41	75	28	1299	5422	51	60	12	1680	4656	46	14	61	1724	5402
16	04	53	1622	4554	51	75	28	1293	5422	7 1	60	16	1650	4598	51	12	60	1707	5402
21	00	50	1620	4554	11 1	73	28	1253	5465	11	60	19	1620	4598	56	10	60	1752	5320
26	00	52	1610	4520	11	71	25	1261	5370	21	65	30	1618	4748	2 1	10	60	1797	5297
31	04	54	1600	4520	26	72	26	1273	5413	31	60	26	1610	4688	6	08	59	1810	5250
36	01	52	1600	4520	41	77	30	1249	5487	41	66	32	1650	4889	11	07	58	1832	5332
41	00	50	1600	4491	56	79	31	1247	5431	51	64	32	1668	4889	16	09	60	1850	5332
46	1696	48	1592	4491	P.M. 0 11	80	31	1255	5305	8 1	62	40	1678	4889	21	10	60	1872	5350
51	92	46	1590	4491	26	78	31	1293	5172	11	68	48	1672	5034	26	12	62	1860	5469
56	90	43	1586	4491	41	80	31	1310	5105	21	66	42	1480	5190	31	14	63	1875	5408
1 1	90	43	1584	4491	56	80	31	1324	5105	26	68	42	1500	5190	36	13	62	1884	5408
6	90	42	1580	4502	1 21	87	37	1280	5150	31	68	42	1470	5309	41	21	67	1827	5223
11	90	40	1580	4502	41	82	34	1305	5067	36	68	42	1538	5309	46	17	64	1851	5075
16	88	40	1578	4502	2 1	86	38	1327	5109	41	66	44	1530	5455	51	19	63	1832	5145
21	87	40	1577	4502	21	78	32	1340	5109	46	67	44	1595	5455	56	22	65	1847	5145
26	85	38	1576	4502	41	67	23	1345	4818	51	67	44	1600	5470	3 1	24	66	1870	5121
31	84	37	1574	4502	3 1	63	22	1327	4780	56	—	40	1609	5470	6	22	65	1850	5174
36	84	35	1570	4502	21	57	16	1318	4801	9 1	—	42	1618	5310	11	20	64	1862	5117
41	84	33	1570	4502	41	55	12	1290	5001	6	86	41	1604	5670	16	18	62	1880	5050
46	82	33	1570	4502	4 1	58	15	1284	5122	11	87	36	1542	5698	21	17	60	1895	5025
51	82	32	1569	4502	21	60	16	1290	5122	16	86	40	1588	5522	26	17	61	1877	5025
56	80	32	1569	4502	41	60	16	1298	5172	21	87	43	1607	5730	31	18	63	1870	5047
2 1	80	32	1568	4579	5 41	1702	51	1451	5293	26	90	43	1607	5730	36	19	64	1862	5029
11	79	30	1568	4579	51	04	53	1448	5195	31	93	45	1608	5728	41	17	63	1890	5022
21	79	30	1567	4579	6 1	1692	42	1424	5002	36	96	46	1600	5704	46	16	62	1902	4999
31	78	30	1565	4579	11	83	35	1409	4905	41	93	43	1578	5685	51	15	61	1910	4999
41	78	30	1568	4579	21	75	30	1431	4905	46	99	49	1608	5728	56	15	61	1915	4976
51	76	28	1564	4579	31	70	26	1445	4905	51	1700	50	1608	5358	4 1	14	60	1920	4970
3 1	75	2																	

Magnetometers.					Magnetometers.					Magnetometers.					Magnetometers.				
Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.
Feb. 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	March 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	April 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	April 1852 d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.
20 P.M. 7 21	1705	1655	1645	4105	27 A.M. 5 26	1674	1644	1500	4397	20 P.M. 10 51	1640	1620	1614	2800	21 P.M. 7 31	1650	1623	1650	2107
31 03	52	52	1652	4367	31 70	70	42	1504	4391	11 1	40	20	1602	2714	41 54	28	1665	2405	
41 00	50	50	1650	4498	36 71	40	40	1500	4391	11 40	20	20	1600	2714	51 55	28	1667	2424	
51 00	50	50	1650	4560	41 70	40	40	1496	4402	21 44	22	22	1597	2714	8 1 55	28	1671	2424	
8 1 07	56	56	1656	4622	46 71	40	40	1490	4402	31 47	24	24	1586	2901	11 47	21	1672	2355	
11 09	56	56	1602	4232	51 70	40	40	1480	4402	41 49	26	26	1580	2901	21 49	22	1708	2680	
21 1690	40	40	1580	4002	56 68	37	37	1470	4354	51 51	26	26	1571	2984	31 43	19	1702	2752	
31 83	39	39	1602	4166	6 1 68	34	34	1480	4354	21 A.M. 0 1	56	25	1560	2984	41 50	22	1738	3144	
41 86	41	41	1620	4308	11 62	30	30	1470	4308	11 58	27	27	1557	3013	51 50	22	1747	3155	
51 1700	50	50	1600	4308	21 60	30	30	1470	4308	21 59	30	30	1555	3051	9 1 50	22	1758	3205	
9 1 1698	50	50	1584	4260	31 60	30	30	1470	4308	31 60	29	29	1554	3051	11 57	27	1759	3205	
11 1700	50	50	1574	4260	41 60	30	30	1468	4296	41 60	30	30	1552	3159	21 60	31	1770	3232	
21 1698	49	49	1548	4624	51 58	29	29	1460	4296	51 60	30	30	1550	3159	31 60	31	1754	3190	
31 92	46	46	1530	4181	7 1 60	30	30	1470	4296	—	—	—	—	—	41 60	30	1720	2986	
41 90	40	40	1560	4225	—	—	—	—	—	—	—	—	—	—	51 60	30	1703	2772	
51 88	39	39	1580	4225	—	—	—	—	—	21 A.M. 8 41	1670	1640	1490	3854	10 1 60	30	1712	2812	
10 1 89	40	40	1590	4225	20 A.M. 11 41	1600	1584	1149	4000	9 41	31	08	1520	4023	11 60	30	1700	2812	
11 90	40	40	1590	4225	P.M. 0 41	00	82	1313	3788	51 30	08	08	1541	4050	21 58	30	1685	2644	
21 90	40	40	1596	4240	51 03	88	1328	3515	—	10 1 27	06	06	1532	4050	31 58	28	1690	2603	
31 94	46	46	1590	4443	1 1 05	90	1345	3339	—	11 22	04	04	1558	4088	41 58	28	1682	2790	
41 98	48	48	1590	4407	11 09	90	1348	3105	—	21 18	00	00	1460	4406	51 54	25	1640	2790	
51 1700	49	49	1594	4407	21 06	90	1336	2995	—	31 18	00	00	1494	4510	11 1 60	28	1602	2502	
11 1 1698	48	48	1588	4407	31 01	90	1330	3127	—	41 15	00	00	1590	4380	11 56	25	1590	2490	
11 96	47	47	1570	4407	41 04	90	1322	3156	—	51 10	1594	1580	4236	—	21 55	24	1590	2554	
21 95	47	47	1574	4407	51 04	90	1330	3395	—	11 10	92	1600	4005	—	31 55	24	1598	2554	
31 95	47	47	1564	4325	2 1 04	90	1332	3395	—	11 07	90	1578	4086	—	41 55	24	1604	2603	
41 94	46	46	1550	4325	11 07	91	1350	3498	—	21 08	90	1590	4205	—	51 56	25	1602	2603	
51 92	45	45	1530	4325	21 07	91	1358	3604	—	31 02	88	1590	4205	—	22 A.M. 0 1 57	25	1602	2628	
21 A.M. 0 1	90	44	1515	4325	31 10	94	1382	3550	—	41 00	90	1648	3844	—	—	—	—	—	
11 87	42	42	1492	4370	41 10	94	1390	3692	—	51 02	90	1728	3577	—	—	—	—	—	
21 86	42	42	1488	4370	51 12	96	1396	3595	—	P.M. 0 1	10	96	1700	3540	Sept. 30 P.M. 1 41	1606	1606	1222	3640
31 88	42	42	1480	4370	3 1 16	1600	1392	3542	—	11 10	94	1684	3540	—	2 41	30	26	1408	4332
41 89	40	40	1480	4419	—	—	—	—	—	21 12	97	1672	4030	—	51 30	30	30	1448	4285
51 88	40	40	1472	4419	—	—	—	—	—	31 12	97	1692	4182	—	3 1 30	32	1469	4285	
1 1 90	42	42	1460	4419	20 P.M. 5 41	1609	1590	1369	3348	41 12	98	1678	4375	—	11 30	30	30	1502	4195
11 88	42	42	1480	4419	6 41	13	93	1543	3958	51 10	94	1620	4401	—	21 32	30	1514	4114	
21 88	42	42	1477	4419	51 15	94	1552	4002	—	1 1 08	94	1680	4297	—	31 32	30	1504	3792	
31 86	41	41	1470	4419	7 1 23	1602	1589	4315	—	11 17	98	1716	4297	—	41 30	30	1490	3575	
41 85	40	40	1468	4419	11 25	07	1605	4315	—	21 18	1602	1788	4012	—	51 30	30	1482	3552	
51 85	40	40	1461	4419	21 35	15	1650	4400	—	31 20	04	1760	4044	—	4 1 32	32	1460	3408	
2 1 84	41	41	1450	4419	31 40	20	1700	4500	—	41 20	02	1780	3891	—	11 32	32	1452	3322	
11 86	40	40	1442	4453	36 41	20	1710	4555	—	51 20	02	1798	4060	—	21 34	33	1435	3239	
21 87	42	42	1433	4453	41 46	26	1722	4175	—	2 1 26	05	1748	4327	—	31 33	31	1410	3092	
31 88	42	42	1420	4453	46 44	23	1739	4210	—	11 37	16	1782	4207	—	41 30	30	1390	2861	
41 88	40	40	1413	4453	51 40	21	1751	4242	—	21 40	20	1772	4207	—	51 30	29	1368	2861	
—	—	—	—	—	56 40	18	1811	4418	—	31 50	30	1780	4360	—	5 1 30	28	1370	2861	
March 27 A.M. 0 41	1637	—	1150	4364	8 1 40	17	1829	4635	—	41 48	29	1790	3739	—	11 22	23	1368	2861	
2 41 88	—	—	1514	4446	6 41	17	1838	4470	—	51 42	22	1786	3739	—	21 22	21	1378	2990	
51 86	1645	1500	4446	—	11 32	10	1817	4149	—	3 1 46	26	1820	3835	—	31 23	22	1390	3010	
3 1 84	50	1480	4446	—	16 42	19	1834	4398	—	11 40	20	1830	3297	—	41 26	24	1417	3209	
11 80	50	1470	4458	—	21 48	25	1842	4535	—	21 40	20	1814	3444	—	51 26	24	1419	3298	
21 85	52	1465	4458	—	26 52	23	1854	4535	—	31 40	20	1827	3210	—	6 1 27	25	1427	3327	
31 82	48	1480	4322	—	31 53	22	1862	4498	—	41 35	16	1832	2900	—	11 26	24	1413	3219	
41 72	36	1430	4206	—	36 40	17	1850	4115	—	51 40	19	1820	3220	—	21 27	25	1411	3284	
46 60	30	1390	4206	—	41 38	13	1840	4012	—	4 1 45	21	1850	3490	—	31 28	26	1424	3299	
51 57	28	1370	4206	—	46 35	11	1822	3913	—	11 50	22	1890	3704	—	41 32	29	1422	3291	
56 58	28	1348	4247	—	51 34	11	1800	3703	—	21 60	30	1896	3839	—	51 33	30	1421	3291	
4 1 58	28	1350	4247	—	56 37	14	1807	3719	—	31 64	36	1882	3712	—	7 1 33	30	1381	3399	
6 60	29	1380	4247	—	9 1 38	14	1792	3719	—	41 62	38	1840	3390	—	11 32	28	1370	3269	
11 60	30	1390	4335	—	6 37	12	1808	3719	—	51 64	38	1830	3304	—	21 30	26	1360	3200	
16 60	30	1406	4335	—	11 33	10	1793	3575	—	5 1 62	38	1820	3340	—	31 32	28	1387	3120	
21 59	30	1424	4335	—	16 32	10	1795	3575	—	11 60	35	1819	3340	—	41 33	30	1400	3156	
26 65	34	1432	4378	—	21 32	10	1796	3575	—	21 56	30	1840	3200	—	51 33	29	1400	3156	
31 70	38	1440	4378	—	26 32	10	1797	3540	—	31 53	28	1632	3052	—	8 1 31	28	1395	3156	
36 64	34	1452	4378	—	31 32	10	1800	5582	—	41 50	26	1820	2920	—	11 30	27	1398	3156	
41 60	30	1460	4381	—	36 32	10	1803	3582	—	51 50	25	1810	2920	—	21 30	27	1397	3166	
46 60	31	1468	4381	—	41 36	12	1789	3582	—	6 1 49	24	1850	3025	—	31 30	26	1399	3080	
51 58	32	1474	4381	—	46 38	13	1780	3582	—	11 46	21	1880	3150	—	41 30	25	1402	3010	
56 60	31	1468	4381	—	51 39	13	1786	358											

Magnetometers.					Magnetometers.					Magnetometers.					Magnetometers.				
Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.
Nov. 1852					Dec. 1852					May 1853					July 1853				
d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.
1 A.M. 7 6	1649	1599	914	1925	10 P.M. 1 51	1692	1625	1070	2820	25 P.M. 8 51	1670	1617	1524	4673	13 A.M. 9 31	1660	1618	1320	4703
11	50	99	924	2056	2 1	90	21	1064	2820	9 1	71	18	1521	4673	36	60	17	1323	4703
16	52	1600	952	2126	11	89	20	1070	2759	11	72	19	1513	4695	41	52	13	1300	4618
21	51	00	951	2126	21	88	20	1065	2759	21	73	19	1500	4695	46	50	10	1294	4618
26	58	00	963	1893	31	86	18	1060	2759	31	73	18	1493	4695	51	48	08	1303	4618
31	59	02	988	2026	41	88	20	1044	2819	41	70	17	1490	4678	56	45	07	1305	4560
36	67	08	1028	2192	51	87	19	1038	2819	51	70	16	1483	4678	10 1	42	05	1307	4560
41	68	10	1030	2248						10 1	70	15	1480	4694	6	40	02	1320	4547
46	70	10	1028	2248						11	68	14	1475	4694	11	39	02	1313	4557
51	72	10	1040	2248	May 1853					21	70	13	1462	4694	16	36	00	1309	4547
56	72	11	1058	2261	25 A.M. 8 41	1715	1656	1379	4872	31	70	13	1450	4694	21	35	1598	1280	4587
8 1	72	11	1054	2097	9 41	1670	15	1555	4839	41	70	13	1438	4664	26	30	94	1201	4658
6	72	10	1058	2097	51	67	12	1608	4798						31	27	92	1202	4658
11	72	11	1062	2003	10 1	60	09	1630	4767	June					36	26	88	1180	4658
16	72	11	1060	2003	11	55	05	1598	4831	3 A.M. 0 41	1672		1410	4626	41	24	89	1104	4681
21	73	12	1067	1809	21	55	04	1610	4840	2 41	1707	1640	1242	4576	46	24	86	1041	4681
26	75	15	1069	1838	31	50	00	1643	4875	51	03	39	1250	4592	51	23	85	1000	4681
31	70	11	999	1660	41	45	1597	1665	4930	3 1	00	38	1257	4592	56	21	86	1099	4681
36	71	11	973	1710	51	43	96	1672	4808	11	1696	36	1270	4620	11 1	25	89	1187	4660
41	72	12	955	1817	11 1	40	94	1658	4782	16	90	32	1299	4637	6	20	85	1270	4683
46	72	12	962	1912	16	28	87	1632	4840	21	85	27	1310	4637	11	25	88	1233	4683
51	72	12	979	2009	21	27	85	1585	4840	26	82	23	1317	4654	16	22	86	1300	4422
56	72	13	979	2009	26	27	83	1620	4776	31	79	20	1320	4654	21	18	84	1333	4635
9 1	72	13	980	2134	31	26	84	1657	4732	36	75	18	1337	4672	26	15	80	1309	4672
6	78	20	1020	2170	36	26	84	1680	4647	41	72	17	1350	4702	31	14	80	1305	4672
11	79	20	1029	2199	41	27	87	1697	4610	46	72	17	1347	4702	36	13	80	1300	4695
16	79	21	988	2104	46	27	87	1699	4610	51	74	17	1340	4681	41	11	78	1300	4675
21	80	21	970	1992	51	24	85	1650	4675	56	76	18	1335	4681	46	10	78	1305	4675
26	72	12	1017	2201	56	22	84	1611	4728	4 1	77	18	1331	4681	51	08	78	1310	4675
31	70	10	1060	2392	P.M. 0 1	23	82	1577	4774	11	80	20	1344	4690	56	06	75	1301	4675
36	80	20	1126	2364	6	21	80	1525	4856	21	80	20	1352	4711	P.M. 0 1	06	76	1290	4675
41	78	19	1102	2470	11	20	80	1547	4820	31	80	20	1364	4739	6	07	76	1282	4707
46	77	19	1090	2490	16	20	80	1580	4793	41	82	20	1348	4721	11	07	77	1272	4723
51	76	18	1076	2479	21	19	80	1580	4910	51	86	22	1353	4721	16	07	78	1263	4739
56	79	20	1040	2406	26	18	79	1557	5040	5 1	88	24	1359	4721	21	08	76	1286	4722
10 1	70	10	1031	2388	31	16	79	1590	5061	11	90	25	1358	4721	26	08	76	1295	4722
6	64	07	1021	2370	36	16	79	1598	4998	21	96	28	1358	4721	31	06	75	1308	4885
11	62	06	1011	2431	41	15	79	1583	4850	31	1700	30	1358	4721	36	05	75	1330	4687
16	64	07	990	2419	46	15	79	1570	4850						41	08	77	1334	4684
21	62	05	998	2358	51	17	81	1562	4850	July					46	10	79	1336	4684
26	68	09	942	2579	56	19	84	1558	4827	13 A.M. 5 41	1668		1299	4581	51	12	80	1338	4684
31	68	09	930	2788	1 1	23	88	1520	4779	6 41	1700	1643	1360	4611	56	11	78	1325	4684
36	66	06	906	2706	6	26	90	1511	4779	46	03	47	1357	4611	1 1	12	82	1326	4675
41	68	08	949	2554	11	28	91	1505	4779	51	07	49	1350	4629	6	15	83	1320	4675
46	70	10	948	2554	16	29	92	1502	4750	56	14	52	1340	4656	11	14	83	1322	4675
51	70	10	940	2554	21	27	92	1478	4762	7 1	17	56	1328	4656	16	14	83	1301	4649
56	68	10	939	2448	26	26	91	1466	4762	6	18	57	1319	4638	21	14	83	1300	4649
11 1	67	10	937	2448	31	27	91	1462	4724	11	20	58	1300	4614	26	14	83	1298	4649
11	69	11	958	2498	36	28	91	1459	4724	16	20	59	1304	4614	31	15	84	1298	4649
21	73	13	939	2661	41	31	92	1462	4684	21	18	58	1285	4614	36	17	86	1297	4649
31	78	17	927	2769	46	30	92	1457	4684	26	20	58	1247	4595	41	18	88	1295	4649
41	77	17	920	2803	51	26	89	1440	4684	31	15	55	1270	4578	46	18	88	1295	4649
51	77	17	919	2803	2 1	23	88	1450	4733	36	10	53	1292	4578	56	19	88	1301	4649
					21	27	90	1464	4733	41	07	50	1310	4554	2 1	18	88	1296	4649
					31	29	91	1459	4747	46	09	51	1288	4554	6	18	88	1296	4649
Dec. 10 A.M. 10 41	1680	1612	859	2979	41	30	91	1440	4726	51	10	52	1270	4587	11	20	89	1298	4649
11 41	96	28	1030	2781	51	30	91	1438	4726	56	10	53	1260	4587	16	21	90	1300	4649
51	97	28	1060	2781	3 1	31	91	1429	4726	8 1	09	52	1256	4587	21	21	90	1303	4649
56	99	30	1084	2781	11	31	92	1427	4726	6	07	50	1254	4587	26	23	90	1301	4651
P.M. 0 1	1702	32	1092	2454						11	02	49	1252	4587	31	23	90	1300	4651
6	05	32	1098	2454						16	00	48	1250	4587	36	24	91	1309	4651
11	02	32	1098	2454	25 P.M. 5 41	1639	1597	1400	4645	21	00	44	1254	4640	41	25	91	1303	4680
16	02	32	1090	2454	6 41	65		1550	4784	26	1698	43	1240	4640	46	26	92	1305	4680
21	02	34	1079	2525	51	62	1612	1568	4814	31	92	40	1230	4640	51	26	92	1305	4680
26	02	33	1076	2513	7 1	64	11	1586	4802	36	90	40	1222	4640	56	29	93	1316	4680
31	03	32	1074	2513	11	63	11	1610	4805	41	86	34	1220	4664	3 1	29	93	1314	4680
36	02	32	1072	2513	21	69	18	1620	4805	46	86	33	1229	4664	6	29	93	1313	4680
41	05	32	1070	2640	31	68	16	1614	4809	51	81	31	1260	4664	11	29	93	1312	4680
46	05	32	1068	2640	41	71	19	1591	4801	56	78	30	1270	4664	16	29	93	1310	4680
51	04	32	1060	2640	51	78	20	1564	4754	9 1	80	30	1290	4664	21	29	94	1310	4680
1 1	05	32	1052	2788	8 1	78	20	1560	4754	6	78	28	1290	4664	26	29	94	1310	4680
10	02	30	1062	2788	11	72	20	1547	4753	11	72	26	1280	4664	31	29	94	131	

Magnetometers.					Magnetometers.					Magnetometers.					Magnetometers.				
Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.	Madras Mean Time.	Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.
July 1853					Sept. 1853					Sept. 1853					Sept. 1853				
d. h. m. sc-d-t. sc-d-t. sc-d-t. sc-d-t.					d. h. m. sc-d-t. sc-d-t. sc-d-t. sc-d-t.					d. h. m. sc-d-t. sc-d-t. sc-d-t. sc-d-t.					d. h. m. sc-d-t. sc-d-t. sc-d-t. sc-d-t.				
13 P.M. 3 51 1628 1595 1323 4646					2 A.M. 11 16 1600 1730 1100 5000					3 A.M. 1 11 1646 1771 1381 4547					3 P.M. 1 31 1595 1734 1485 4748				
56 28 95 1328 4646					21 00 30 1129 5000					21 45 71 1390 4547					41 95 32 1460 4783				
4 1 28 96 1332 4646					26 00 30 1137 5000					31 45 70 1388 4547					51 93 30 1482 4783				
6 28 95 1326 4646					31 03 30 1185 5047					41 44 70 1388 4547					2 1 90 30 1490 4762				
11 29 96 1328 4646					36 06 32 1207 5047					51 44 70 1392 4520					11 90 30 1483 4762				
16 30 96 1337 4646					41 07 33 1236 5070					2 1 44 70 1394 4520					21 94 32 1477 4800				
21 30 98 1341 4634					46 09 34 1250 5070					11 43 70 1390 4520					31 1606 45 1498 4800				
26 30 98 1339 4634					51 10 36 1288 5070					21 42 70 1387 4520					41 20 53 1480 4722				
31 30 98 1334 4634					56 12 36 1310 5096					31 41 70 1384 4520					51 24 55 1496 4722				
36 32 99 1330 4634					P.M. 0 1 12 38 1357 5096					41 40 72 1382 4643					3 1 25 57 1493 4722				
41 35 1600 1330 4600					11 12 38 1376 5060					51 40 72 1380 4643					11 27 60 1500 4720				
46 35 00 1330 4600					21 14 40 1399 5060					3 1 40 71 1371 4643					21 27 60 1500 4720				
51 37 01 1341 4600					31 16 43 1457 4996					11 39 70 1364 4643					31 25 60 1502 4720				
56 37 02 1342 4600					41 20 50 1520 4842					21 38 69 1350 4643					41 30 70 1532 4762				
5 1 38 03 1344 4600					51 25 54 1556 4800					31 37 68 1332 4643					51 30 70 1540 4762				
6 38 03 1342 4600					1 1 32 60 1562 4783					41 35 67 1319 4552					4 1 33 72 1555 4762				
11 38 02 1338 4574					11 38 66 1575 4783					51 34 67 1310 4552					11 37 73 1558 4762				
16 39 01 1338 4572					21 40 70 1585 4852					4 1 34 65 1303 4552					21 40 74 1560 4794				
21 40 02 1347 4616					31 44 72 1586 4707					11 34 65 1284 4552					31 46 75 1557 4794				
26 40 02 1340 4616					41 50 75 1590 4665					21 33 64 1263 4552					41 50 77 1582 4762				
31 40 02 1332 4596					51 50 75 1604 4620					31 32 64 1230 4552					51 50 78 1594 4762				
41 42 06 1332 4576					2 1 48 75 1622 4500					41 32 63 1218 4552					5 1 50 79 1603 4762				
51 42 05 1331 4576					11 46 75 1647 4459					51 32 63 1226 4552									
6 1 43 05 1329 4576					21 47 77 1630 4420					5 1 31 63 1240 4629									
11 44 07 1329 4576					31 47 77 1600 4420					11 30 63 1258 4629					Decr. 6 P.M. 6 41 1669 — 920 4734				
21 46 09 1329 4576					41 47 77 1593 4460					21 30 62 1270 4629					7 41 — — 1145 —				
31 48 10 1325 4576					51 49 78 1590 4460					31 48 70 1298 4688					46 87 1825 1197 4869				
41 43 06 1327 4602					3 1 50 78 1585 4460					41 60 78 1338 4705					51 85 26 1212 4864				
					11 50 79 1579 4460					51 64 81 1364 4705					56 90 26 1220 4864				
Sept. 2 A.M. 6 41 1680 1790 969 4672										6 1 70 84 1370 4762					8 1 90 26 1239 4864				
7 41 82 93 1110 5050					2 P.M. 5 41 1668 1793 1460 4653					11 82 97 1353 4762					6 90 29 1250 4864				
46 79 91 1135 5050					6 41 68 96 1578 4810					21 89 1809 1352 4762					11 90 30 1258 4864				
51 75 88 1170 5077					51 68 97 1578 4798					31 91 10 1350 4794					16 89 29 1274 4864				
56 70 86 1154 5095					7 1 74 1801 1540 4764					41 98 12 1367 4794					21 95 33 1297 4864				
8 1 68 85 1132 5095					11 82 03 1522 4735					51 98 12 1381 4794					26 97 34 1310 4864				
6 66 83 1170 5060					21 82 05 1538 4742					7 1 93 10 1362 4794					31 1700 40 1300 4832				
11 65 80 1180 5060					31 82 06 1535 4742					11 92 08 1339 4794					36 00 40 1300 4832				
16 62 76 1168 5013					41 82 08 1528 4742					21 90 06 1330 4794					41 04 40 1302 4832				
21 59 75 1160 5013					51 84 08 1533 4729					31 90 07 1347 4815					46 10 47 1300 4832				
26 57 73 1113 5029					8 1 82 05 1541 4732					41 89 05 1368 4821					51 14 50 1292 4832				
31 55 72 1085 5044					11 80 00 1560 4746					51 86 04 1374 4852					56 15 50 1291 4832				
36 55 71 1078 5044					21 76 00 1572 4766					8 1 84 03 1380 4852					9 1 17 52 1290 4787				
41 50 68 1074 4936					31 80 05 1581 4786					11 73 1795 1338 4872					6 13 50 1287 4787				
46 48 64 1070 4900					41 81 01 1588 4763					21 74 95 1309 4885					11 12 48 1281 4787				
51 45 59 1068 4900					51 80 00 1585 4733					31 75 96 1310 4885					16 06 41 1278 4787				
56 42 52 1069 4804					9 1 80 00 1580 4720					41 76 97 1322 4950					21 05 40 1274 4695				
9 1 40 50 1070 4804					11 79 00 1587 4657					51 74 93 1319 4950					26 04 40 1269 4695				
6 37 48 1073 4771					26 78 1799 1599 4657					9 1 70 92 1317 4950					31 03 40 1270 4695				
11 31 47 1075 4771					41 76 97 1604 4657					11 69 90 1329 4950					36 05 40 1270 4695				
16 27 46 1076 4771					56 70 94 1572 4541					21 67 88 1340 4950					41 03 37 1267 4717				
21 22 47 1076 4763					10 1 67 91 1540 4517					31 57 85 1378 4999					46 01 35 1263 4717				
26 20 47 1078 4763					6 62 88 1500 4602					41 53 77 1375 5004					51 1698 33 1259 4717				
31 20 46 1080 4763					11 56 84 1461 4673					51 50 76 1370 4980					56 95 30 1253 4690				
36 17 44 1074 4763					16 51 80 1407 4710					10 1 50 77 1357 4920					10 1 93 28 1250 4690				
41 10 40 1070 4786					21 50 80 1415 4747					11 50 78 1361 4965					6 92 26 1245 4671				
46 10 40 1073 4786					26 49 80 1439 4747					21 48 76 1370 4955					11 90 25 1240 4671				
51 11 40 1077 4786					31 49 79 1450 4724					31 40 67 1373 4955					16 89 23 1245 4578				
56 12 40 1080 4786					41 51 79 1471 4724					41 34 63 1350 5000					21 87 21 1241 4578				
10 1 10 39 1081 4786					41 52 80 1482 4680					51 27 56 1415 4965					26 85 20 1237 4595				
6 10 38 1082 4786					51 52 80 1478 4680					11 1 22 50 1412 4965					31 85 20 1230 4595				
11 10 36 1080 4786					11 52 80 1472 4680					11 18 45 1415 4930					36 87 21 1236 4617				
16 10 35 1071 4809					26 52 80 1471 4680					21 06 39 1398 4986					41 88 23 1240 4634				
21 10 33 1065 4809					41 53 80 1483 4680					31 00 33 1366 5066					51 85 21 1238 4634				
26 03 30 1042 4809					56 53 80 1487 4662					41 02 30 1420 4957					11 1 83 20 1235 4634				
31 04 28 1029 4850										51 00 30 1423 4963					11 81 20 1227 4650				
36 02 28 1018 4850										P.M. 0 1 1598 29 1440 4963					21 80 20 1219 4650				
41 1598 22 1020 4850										11 90 22 1462 4900					31 80 19 1209 4621				
46 96 22 1023 4850										21 83 20 1460 4872					41 80 19 1200 4621				
51 93 22 1028 4850					3 A.M. 0 11 1652 1779 1479 4662					31 80 20 1496 4834					51 80 19 1202 4621				
56 92 22 1030 4850					26 50 77 1470 4647					41 84 20 1462 4938									
11 1 94 23 1057 4912					41 50 76 1358 4608					51 86 22 1424 4938					7 A.M. 0 1 1682 1820 1190 4640				
6 97 25 1080 4912					51 48 73 1369 4608					1 1 80 2									

Magnetometers.					Magnetometers.					Magnetometers.					Magnetometers.				
Madras					Madras					Madras					Madras				
Mean Time.	Declination.	Induction Incliner.	Horizontal Force.	Vertical Force.	Mean Time.	Declination.	Induction Incliner.	Horizontal Force.	Vertical Force.	Mean Time.	Declination.	Induction Incliner.	Horizontal Force.	Vertical Force.	Mean Time.	Declination.	Induction Incliner.	Horizontal Force.	Vertical Force.
Decr. 1853					Decr. 1853					March 1854					March 1854				
d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.	d. h. m.	sc-d-t.	sc-d-t.	sc-d-t.	sc-d-t.
7 A.M. 0 21	1694	1828	1188	4658	7 A.M. 6 51	1671	1811	1052	4622	16 A.M. 8 26	1692	1802	971	4846	29 A.M. 1 1	1714	1821	1179	5073
26 96	30	1199	4658		7 1 70	09	1042	4622		31 90	01	989	4840		11 13	21	1197	5055	
31 98	31	1212	4690		16 68	02	1020	4622		36 94	03	970	4840		21 12	20	1205	5032	
36 99	32	1226	4690		31 68	02	1010	4622		41 1700	08	970	4872		31 10	18	1214	5032	
41 1700	34	1230	4700		41 63	02	999	4608		46 00	09	964	4872		41 09	16	1221	5059	
46 1697	32	1237	4700							51 00	09	958	4860		51 07	14	1215	5064	
51 95	31	1248	4700							56 1699	08	952	4860		2 1 04	13	1202	5064	
56 93	30	1262	4681		21 P.M. 4 41	1659	1800	662	4670	9 1 97	08	946	4852		11 02	11	1199	5064	
1 1 92	29	1270	4657		5 41 70	07	747	4812		6 96	08	930	4852		21 00	10	1175	5080	
6 90	26	1237	4620		51 70	06	802	4812		11 95	07	924	4845		31 1695	06	1123	5037	
11 85	21	1200	4577		6 1 70	06	820	4812		16 95	07	920	4845		41 90	02	1060	4961	
16 80	19	1171	4532		11 68	04	842	4737		21 93	07	918	4845		46 92	03	1031	4940	
21 72	17	1147	4510		21 60	1799	851	4722		31 92	05	882	4909		51 89	01	1010	4940	
26 68	12	1105	4471		31 60	99	860	4722		41 92	03	872	4928		56 86	1799	989	4932	
31 62	05	1090	4471		41 56	93	866	4724		51 93	03	871	4928		3 1 84	96	1010	4932	
36 64	03	1072	4495		51 54	92	866	4724							6 82	95	1030	4960	
41 72	10	1047	4524		7 1 54	93	866	4720		28 P.M. 5 41	1688	1809	1327	5203	11 82	94	1038	4960	
46 76	13	1065	4548		11 54	93	868	4720		6 41 88			1228	5106	16 82	93	1046	4960	
51 78	18	1078	4572		21 54	93	868	4720		6 41 88			1228	5106	21 81	93	1049	4989	
56 83	23	1090	4572		31 54	93	866	4720		51			1255		26 81	92	1050	5022	
2 1 87	29	1107	4617		41 54	93	860	4685		7 1 1700	1815	1338	5206		31 82	93	1055	5022	
6 90	32	1135	4617		51 54	93	857	4685		11 1699	13	1352	5180		36 84	94	1061	5022	
11 94	37	1140	4635		8 1 59	1803	868	4685		21 99	10	1370	5212		41 85	97	1069	5022	
16 94	36	1146	4635		11 60	02	874	4685		31 1700	10	1376	5215		46 86	98	1072	5072	
21 95	36	1149	4635		21 60	02	886	4685		41 05	16	1378	5215		51 87	98	1077	5072	
26 95	34	1157	4655		31 60	00	894	4685		51 11	21	1388	5190		56 87	99	1080	5072	
31 95	33	1169	4655		41 58	1795	916	4700		8 1 12	21	1382	5172		4 1 85	98	1080	5072	
36 95	32	1173	4655		51 57	93	919	4700		11 12	22	1388	5172		6 82	97	1080	5072	
41 95	30	1179	4674		9 1 50	88	910	4672		21 16	24	1372	5193		11 81	95	1077	5072	
46 96	30	1182	4674		11 45	82	904	4670		31 16	23	1326	5150		16 80	93	1069	5072	
51 97	30	1186	4674		16 49	86	885	4627		41 17	23	1282	5105		21 80	92	1067	5072	
56 98	30	1188	4674		21 54	90	870	4627		51 17	23	1270	5105		26 78	91	1062	5072	
3 1 98	30	1187	4674		26 57	92	851	4600		9 1 17	22	1297	5105		31 78	90	1057	5072	
6 98	30	1185	4674		31 58	94	830	4600		11 14	20	1310	5105		36 78	90	1050	5072	
11 99	30	1183	4674		36 56	95	805	4615		21 18	25	1325	5141		41 78	90	1042	5050	
16 1700	30	1181	4671		41 55	93	780	4615		31 20	28	1298	5141		46 78	90	1041	5050	
21 00	30	1180	4671		46 54	92	768	4557		41 18	26	1313	5141		51 79	90	1042	5050	
26 1699	30	1180	4671		51 52	91	752	4557		51 15	24	1310	5127		56 79	90	1043	5050	
31 96	30	1176	4641		56 51	90	770	4576		10 1 14	23	1252	5107		5 1 80	91	1045	5050	
36 94	29	1170	4641		10 1 51	90	765	4576		6 11	21	1198	4988		6 80	91	1047	5050	
41 90	28	1162	4641		6 50	88	750	4550		11 09	20	1150	4988		11 80	90	1048	5050	
46 90	28	1160	4641		11 50	88	748	4550		16 14	22	1130	4927		16 80	90	1049	5050	
51 95	30	1158	4641		21 50	88	760	4602		21 17	25	1102	4870		21 80	90	1050	5050	
56 98	30	1150	4641		31 50	89	778	4632		26 12	24	1144	4901		26 80	90	1050	5050	
4 1 1700	30	1140	4641		41 51	89	795	4678		31 10	21	1181	4987		31 80	90	1050	5050	
6 1698	30	1140	4641		51 51	90	793	4678		36 08	20	1190	4987		36 80	90	1050	5074	
11 95	30	1142	4641		11 1 52	90	797	4678		41 10	19	1197	5057		41 80	90	1051	5074	
16 92	30	1140	4630		11 52	90	797	4678		46 13	21	1211	5080		46 80	90	1051	5074	
21 92	30	1140	4630		21 53	90	800	4660		51 15	23	1245	5124		51 80	90	1052	5074	
26 90	30	1140	4630		31 53	91	795	4660		56 17	24								

Madras Mean Time.		Magnetometers.				Madras Mean Time.	Magnetometers.				Madras Mean Time.	Magnetometers.				Madras Mean Time.	Magnetometers.						
		Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.		Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.		Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.		Declination.	Induction Inclinometer.	Horizontal Force.	Vertical Force.			
April 1854						April 1854						April 1854						April 1854					
d.	h. m.	sc-d.t.	sc-d.t.	sc-d.t.	sc-d.t.	d.	h. m.	sc-d.t.	sc-d.t.	sc-d.t.	sc-d.t.	d.	h. m.	sc-d.t.	sc-d.t.	sc-d.t.	sc-d.t.	d.	h. m.	sc-d.t.	sc-d.t.	sc-d.t.	sc-d.t.
11 A.M.	9 51	1702	1798	1336	5260	11 P.M.	0 16	1670	1777	1633	4950	11 P.M.	2 31	1667	1772	1540	5108	11 P.M.	4 51	1735	1828	1725	5080
	56	1698	95	1365	5166		21	69	76	1610	4950		36	65	70	1548	5108		56	30	23	1710	5046
10	1	98	94	1390	5166		26	67	73	1608	4950		41	65	70	1554	5154	5	1	26	20	1678	5046
	6	92	92	1421	5142		31	65	72	1604	4950		46	67	72	1559	5154		6	20	15	1675	4984
	11	91	90	1420	5142		36	62	70	1600	4950		51	70	72	1562	5154		11	10	06	1650	4984
	16	90	90	1465	5095		41	60	70	1578	4903		56	70	73	1560	5212		16	03	00	1630	4910
	21	90	90	1410	5163		46	60	70	1562	4903	3	1	74	77	1587	5212	21	1695	1796	1624	4887	
	26	90	90	1389	5163		51	60	70	1550	4903		6	79	80	1605	5376	26	90	93	1618	4887	
	31	87	87	1397	5135		56	60	70	1545	4967		11	87	83	1647	5376	31	88	90	1610	4887	
	36	83	85	1415	5097	1	1	63	72	1558	4967		16	93	86	1683	5376	36	86	88	1613	4887	
	41	80	82	1426	5082		6	67	73	1567	5022		21	97	95	1698	5420	41	84	86	1615	4934	
	46	77	80	1433	5082		11	70	74	1572	5022	26	1700	99	99	1706	5420	46	80	84	1610	4934	
	51	72	77	1410	5082		16	78	80	1550	5022	31	05	1800	1748	5497		51	79	82	1603	4934	
	56	69	75	1397	5082		21	83	86	1543	5071	36	10	06	1775	5330		56	77	80	1590	4909	
11	1	67	72	1388	5082		26	90	90	1535	5071	41	18	10	1806	5298	6	1	77	80	1598	4909	
	11	72	75	1435	5140		31	93	95	1550	5071	46	23	15	1844	5298	11	75	80	1594	4909		
	21	80	82	1470	5140		36	97	97	1568	5071	51	28	20	1870	5298	21	76	80	1586	4909		
	26	83	86	1518	5037		41	1700	1800	1585	5049	4	1	29	20	1863	5253	31	78	81	1580	4909	
	31	86	90	1540	5037		46	00	00	1570	5049		6	30	22	1855	5253	41	77	81	1560	4911	
	36	85	90	1577	4982		51	00	00	1562	5049	11	25	18	1800	5154		51	78	81	1540	4911	
	41	83	87	1603	5000		56	1690	1791	1530	5049	16	20	14	1772	5154	7	1	78	80	1535	4911	
	46	80	85	1640	5000	2	1	86	86	1499	5049	21	27	19	1754	5154		11	78	81	1540	4911	
	51	78	84	1678	5000		6	80	80	1500	5030	26	33	24	1782	5217		21	79	80	1542	4911	
	56	75	84	1699	4927		11	78	77	1503	5030	31	40	30	1800	5217		31	79	80	1560	4911	
P.M.	0 1	74	81	1690	4927		16	70	75	1508	5030	36	43	33	1800	5148		41	77	82	1525	4911	
	6	73	81	1680	4927		21	70	74	1500	5108	41	44	35	1783	5148		51	82	85	1505	4949	
	11	71	79	1657	4950		26	67	72	1522	5108	46	40	31	1750	5080	8	1	83	85	1500	4949	

MADRAS, 1851.—OBSERVATIONS OF THE MAGNETIC INCLINATION, OR DIP.

Day.	Min. and Sec. of		Mean Dip.	Day.	Min. and Sec. of		Mean Dip.	Day.	Min. and Sec. of		Mean Dip.	Day.	Min. and Sec. of		Mean Dip.
	Max.	Min.			Max.	Min.			Max.	Min.			Max.	Min.	
Jan. 3	41 34	39 56	7 40 45	Apr. 1	39 56	34 1	7 36 58	July 1	—	—	—	Oct. 3	41 0	34 55	7 37 58
7	38 56	34 45	7 36 50	4	41 20	34 32	7 37 56	4	42 28	39 19	7 40 53	7	40 2	33 34	7 36 48
10	38 0	34 34	7 36 17	8	41 36	36 7	7 38 51	8	40 32	37 9	7 38 50	10	39 23	36 44	7 38 3
14	37 49	34 56	7 36 22	11	39 39	35 20	7 37 30	11	40 3	36 37	7 38 20	14	39 42	34 53	7 37 17
17	39 22	37 48	7 38 35	15	38 37	36 2	7 37 20	15	—	—	—	17	41 4	36 51	7 38 57
21	39 15	34 37	7 36 56	18	39 14	34 12	7 36 43	18	40 53	35 37	7 38 15	21	42 29	41 49	7 42 9
24	39 34	34 4	7 36 49	22	39 0	34 10	7 36 35	22	—	—	—	24	38 31	34 8	7 36 20
28	—	—	—	25	39 11	36 49	7 38 0	25	39 46	37 2	7 38 24	28	43 10	35 29	7 39 20
31	35 1	35 45	7 35 23	29	38 56	33 3	7 36 0	29	38 27	35 23	7 36 55	31	43 17	34 35	7 38 56
Mean.	38 41	35 48	7 37 15	Mean.	39 43	34 55	7 37 19	Mean.	40 21	36 51	7 38 36	Mean.	40 58	35 53	7 38 25
Feb. 4	38 46	30 28	7 34 37	May 2	39 36	38 59	7 39 18	Aug. 1	38 53	34 50	7 36 52	Nov. 4	—	—	—
7	37 22	29 49	7 33 35	6	40 49	37 38	7 39 13	5	39 6	37 53	7 38 30	7	—	—	—
11	32 6	31 15	7 31 40	9	40 19	38 42	7 39 30	8	—	—	—	11	41 17	35 7	7 38 12
14	37 45	36 45	7 37 15	13	39 19	34 47	7 37 3	12	39 43	37 18	7 38 30	14	—	—	—
18	41 15	34 4	7 37 40	16	39 36	33 28	7 36 32	15	39 17	40 4	7 39 40	18	37 45	36 35	7 37 10
21	40 37	32 37	7 36 37	20	44 7	38 10	7 41 8	19	39 29	36 12	7 37 50	21	39 11	36 47	7 37 59
25	39 37	35 0	7 37 18	23	40 29	37 0	7 38 45	22	38 23	36 22	7 37 22	25	41 26	35 3	7 38 14
28	39 4	32 49	7 35 56	27	37 41	36 12	7 36 56	26	39 3	36 43	7 37 53	28	38 17	34 31	7 36 24
				30	38 29	35 4	7 36 46	29	39 43	39 46	7 39 45				
Mean.	38 19	32 51	7 35 35	Mean.	40 3	36 40	7 38 21	Mean.	39 12	37 24	7 38 18	Mean.	39 35	35 37	7 37 36
Mar. 4	38 4	32 41	7 35 22	June 3	41 20	35 40	7 38 30	Sept. 2	39 4	36 50	7 37 57	Dec. 2	39 2	39 22	7 39 12
7	37 19	32 22	7 34 50	6	40 23	36 0	7 38 11	5	46 52	37 2	7 41 57	5	39 1	36 10	7 37 35
11	37 8	34 22	7 35 45	10	40 12	36 37	7 38 25	9	40 20	33 31	7 36 56	9	39 3	36 18	7 37 40
14	37 30	35 26	7 36 28	13	39 9	36 44	7 37 56	12	39 35	36 53	7 38 14	12	39 18	37 24	7 38 21
18	39 4	31 11	7 35 7	17	39 56	36 26	7 38 11	16	42 14	33 14	7 37 44	16	39 4	36 29	7 37 47
21	38 41	33 30	7 36 5	20	39 28	39 38	7 39 33	19	40 15	38 59	7 39 37	19	38 50	33 20	7 36 5
25	39 0	29 56	7 34 28	24	41 5	35 50	7 38 27	23	39 26	33 16	7 36 21	23	41 42	38 19	7 40 0
28	38 26	32 30	7 35 28	27	40 5	37 1	7 38 33	26	37 20	35 14	7 36 17	26	37 19	31 40	7 34 30
								30	46 26	37 15	7 41 50	30	42 45	42 5	7 42 25
Mean.	38 9	32 45	7 35 27	Mean.	40 12	36 44	7 38 28	Mean.	41 17	35 48	7 38 33	Mean.	39 34	36 47	7 38 11

Mean Dip. for the year = $7^{\circ} 37' 40''$

$$\text{Mean Daily Range} = 4 \quad 0.$$

Mean daily Range = 3 22.

MADRAS, 1853.—OBSERVATIONS OF THE MAGNETIC INCLINATION, OR DIP.

Mean daily Range = 3 23.

Day.	Min. and Sec. of		Mean Dip.	Day.	Min. and Sec. of		Mean Dip.	Day.	Min. and Sec. of		Mean Dip.	Day.	Min. and Sec. of		Mean Dip.
	Max.	Min.			Max.	Min.			Max.	Min.			Max.	Min.	
Jan. 3	44 6	37 4	7 40 35	April 4	39 22	37 11	7 38 16	July 4	45 45	34 26	7 40 5	Oct. 3	38 34	36 56	7 37 45
6	40 2	36 49	7 38 25	7	40 11	34 52	7 37 31	7	41 11	37 0	7 39 6	6	41 7	36 11	7 38 39
10	38 15	34 52	7 36 33	11	46 30	37 11	7 41 50	11	39 26	39 19	7 39 22	10	42 4	40 26	7 41 15
13	36 26	34 26	7 35 26	14	47 4	37 56	7 42 30	14	40 0	38 26	7 39 13	13	48 20	38 42	7 43 31
17	34 41	33 49	7 34 15	18	37 56	37 41	7 37 48	18	—	—	—	17	—	—	—
20	48 4	39 22	7 43 43	21	38 4	36 34	7 37 19	21	40 42	33 49	7 37 16	20	41 53	35 17	7 38 35
24	37 4	36 52	7 36 58	25	34 22	30 7	7 32 14	25	37 34	34 45	7 36 10	24	40 32	40 24	7 40 28
27	44 7	40 45	7 42 26	28	34 34	31 49	7 33 11	28	37 34	32 45	7 35 10	27	42 5	36 59	7 39 32
31	40 41	40 4	7 40 22									31	44 17	40 24	7 42 20
Mean.	40 23	37 7	7 38 45	Mean.	39 45	35 25	7 37 35	Mean.	40 19	35 47	7 38 3	Mean.	42 22	38 10	7 40 16
Feb. 3	42 11	35 4	7 38 37	May 2	41 56	38 41	7 40 18	Aug. 1	45 34	33 30	7 39 32	Nov. 3	36 59	37 11	7 37 5
7	44 15	38 7	7 41 11	5	36 56	36 45	7 36 50	4	40 30	34 15	7 37 23	7	39 46	38 59	7 39 22
10	41 49	40 41	7 41 15	9	—	—	—	8	—	—	—	10	—	—	—
14	39 41	36 52	7 38 16	12	—	—	—	11	—	—	—	14	—	—	—
17	37 22	35 30	7 36 26	16	—	—	—	15	41 30	41 4	7 41 17	17	41 2	35 20	7 38 11
21	39 30	38 41	7 39 5	19	—	—	—	18	34 41	34 30	7 34 36	21	37 36	34 35	7 36 6
24	42 19	39 0	7 40 39	23	—	—	—	22	38 34	37 15	7 37 55	24	—	—	—
28	40 11	38 30	7 39 20	26	—	—	—	25	38 52	36 45	7 37 48	28	43 25	41 27	7 42 26
				30	—	—	—	29	—	—	—				
Mean.	40 55	37 48	7 39 21	Mean.	39 26	37 43	7 38 34	Mean.	39 57	36 13	7 38 5	Mean.	39 46	37 30	7 38 38
Mar. 3	40 45	39 26	7 40 5	June 2	40 4	39 56	7 40 0	Sept. 1	37 15	36 56	7 37 5	Dec. 1	41 50	37 48	7 39 49
7	41 49	39 15	7 40 32	6	41 22	39 26	7 40 24	5	38 37	37 52	7 38 14	5	40 39	40 46	7 40 42
10	42 22	39 15	7 40 48	9	42 19	39 41	7 41 0	8	38 56	38 37	7 38 46	8	39 13	39 41	7 39 27
14	40 37	40 11	7 40 24	13	41 34	35 4	7 38 19	12	41 52	41 11	7 41 31	12	38 37	37 23	7 38 0
17	43 49	36 15	7 40 2	16	42 52	32 22	7 37 37	15	41 19	38 52	7 40 5	15	42 11	40 32	7 41 21
21	39 11	35 19	7 37 15	20	43 4	37 19	7 40 11	19	40 19	39 49	7 40 4	19	36 35	39 51	7 38 13
24	42 49	38 37	7 40 43	23	—	—	—	22	37 22	37 15	7 37 18	22	—	—	—
28	41 4	36 52	7 38 58	27	41 56	40 49	7 41 22	26	36 7	35 19	7 35 43	26	37 50	36 31	7 37 10
31	46 19	37 41	7 42 0	30	41 0	34 34	7 37 47	29	39 4	36 34	7 37 49	29	—	—	—
Mean.	42 5	38 6	7 40 5	Mean.	41 46	37 24	7 39 35	Mean.	38 59	38 3	7 38 31	Mean.	39 34	38 56	7 39 15

Mean Dip for the year = 7 38 54

Mean daily Range = 3 5

Jan. 2	41° 39'	38° 45'	7° 40' 12"	Apr. 3	39° 20'	35° 40'	7° 37' 30"	July 3	39° 42'	37° 38'	7° 38' 40"	Oct. 2	45° 57'	36° 21'	7° 41' 9"
5	42 23	35 57	7 39 10	6	41 8	37 5	7 39 6	6	42 4	38 45	7 40 25	5	41 32	40 46	7 41 9
9	39 19	38 51	7 39 5	10	34 30	33 59	7 34 15	10	37 34	35 56	7 36 45	9	42 21	36 16	7 39 18
12	39 36	36 39	7 38 7	13	39 2	37 4	7 38 3	13	44 45	39 26	7 42 6	12	—	—	—
16	—	—	—	17	39 48	38 11	7 39 0	17	39 24	35 8	7 37 16	16	41 0	34 45	7 37 52
19	43 8	41 3	7 42 5	20	39 37	33 52	7 36 44	20	—	—	—	19	—	—	—
23	39 11	39 59	7 39 35	24	39 35	34 5	7 36 50	24	36 49	34 30	7 35 39	23	41 0	38 23	7 39 41
26	41 41	41 30	7 41 35	28	35 30	33 52	7 34 41	27	40 38	37 56	7 39 17	26	37 53	37 41	7 37 47
30	39 57	39 26	7 39 41					31	38 26	34 41	7 36 33	30	33 38	29 11	7 31 24
Mean.	40 52	39 1	7 39 56	Mean.	38 34	35 28	7 37 1	Mean.	39 55	36 45	7 38 20	Mean.	40 29	36 12	7 38 20
Feb. 2	37° 5'	37° 28'	7° 37' 16"	May 1	44° 11'	32° 19'	7° 38' 15"	Aug. 3	—	—	—	Nov. 2	38° 6'	36° 9'	7° 37' 7"
6	41 13	41 7	7 41 10	4	42 3	32 34	7 37 18	7	38 56	36 15	7 37 36	6	43 59	43 19	7 43 39
9	40 45	39 8	7 39 56	8	43 6	39 55	7 41 30	10	39 11	35 49	7 37 30	9	41 4	40 4	7 40 34
13	40 27	39 48	7 40 7	11	43 30	42 22	7 42 56	14	37 53	32 20	7 35 6	13	39 49	37 4	7 38 26
16	44 19	35 51	7 40 5	15	—	—	—	17	42 34	34 46	7 38 40	16	35 4	34 19	7 34 41
20	—	—	—	18	42 36	36 15	7 39 25	21	37 7	37 4	7 37 6	20	44 15	34 15	7 39 15
23	42 9	36 28	7 39 18	22	—	—	—	24	40 23	40 15	7 40 19	23	37 0	35 4	7 36 2
27	39 21	35 32	7 37 27	25	40 41	40 30	7 40 36	28	—	—	—	27	46 22	38 56	7 42 39
				29	41 41	38 26	7 40 4	31	41 41	34 15	7 37 58	30	—	—	—
Mean.	40 46	37 54	7 39 20	Mean.	42 33	37 29	7 40 1	Mean.	39 41	35 49	7 37 45	Mean.	40 42	37 24	7 39 3
Mar. 2	40° 30'	38° 1'	7° 39' 15"	June 1	44° 11'	41° 4'	7° 42' 37"	Sept. 4	38° 34'	39° 19'	7° 38' 56"	Dec. 4	—	—	—
6	43 24	38 14	7 40 49	5	42 45	43 7	7 42 56	7	43 4	33 4	7 38 4	7	—	—	—
9	39 39	33 46	7 36 42	8	46 26	46 22	7 46 24	11	36 41	35 4	7 35 53	11	40 46	37 0	7 38 53
13	—	—	—	12	46 7	42 19	7 44 13	14	—	—	—	14	36 10	34 35	7 35 22
16	38 30	37 11	7 37 50	15	—	—	—	18	—	—	—	18	42 46	36 50	7 39 48
20	42 12	37 54	7 40 3	19	40 5	39 14	7 39 35	21	34 4	33 19	7 33 41	21	35 10	33 27	7 34 19
23	35 9	36 34	7 35 50	22	39 4	38 15	7 38 40	25	—	—	—	25	40 4	36 4	7 38 4

1851.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.	1851.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.	1851.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.
Jan. 28	5.0006	110.99	0.13282	8.1860	June 4.	5.0006	110.11	0.13461	8.1442	Sept. 29	5.0006	109.86	0.13875	8.1195
	6.5008	50.54				6.5008	50.39				6.5008	50.52		
	5.0006	110.99	0.13410	8.1740		5.0006	110.11	0.13423	8.1478		5.0006	109.86	0.13522	8.1527
	6.7510	45.19				6.7510	45.00				6.7510	44.99		
	5.0006	110.99	0.13167	8.1970		5.0006	110.11	0.13589	8.1322		5.0006	109.86	0.13274	8.1798
	7.0006	40.42				7.0006	40.45				7.0006	40.26		
	5.1673	100.50	0.13357	8.1790		5.1673	100.05	0.13337	8.1558		5.1673	99.65	0.13932	8.1142
	6.5008	50.54				6.5008	50.39				6.5008	50.52		
	5.1673	100.50	0.13481	8.1673		5.1673	100.05	0.13314	8.1580		5.1673	99.65	0.13535	8.1514
	6.7510	45.19				6.7510	45.00				6.7510	44.99		
	5.1673	100.50	0.13209	8.1930		5.1673	100.05	0.13511	8.1396		5.1673	99.65	0.13270	8.1762
	7.0006	40.42				7.0006	40.45				7.0006	40.26		
Feb. 27.	5.3342	91.43	0.13304	8.1839	do. 25.	5.3342	90.82	0.13504	8.1402	Oct. 27..	5.3342	90.64	0.14015	8.1064
	6.5008	50.54				6.5008	50.39				6.5008	50.52		
	5.3342	91.43	0.13450	8.1703		5.3342	90.82	0.13446	8.1456		5.3342	90.64	0.13563	8.1488
	6.7510	45.19				6.7510	45.00				6.7510	44.99		
	5.3342	91.43	0.13160	8.1975		5.3342	90.82	0.13636	8.1278		5.3342	90.64	0.13269	8.1764
	7.0006	40.42				7.0006	40.45				7.0006	40.26		
	5.0006	110.19	0.13670	8.1478		5.0006	110.24	0.13451	8.1510		5.0006	110.00	0.13547	8.1428
	6.5008	50.51				6.5008	50.42				6.5008	50.40		
	5.0006	110.19	0.13535	8.1606		5.0006	110.24	0.13805	8.1178		5.0006	110.00	0.13456	8.1512
	6.7510	45.07				6.7510	45.21				6.7510	44.99		
	5.0006	110.19	0.13359	8.1772		5.0006	110.24	0.13624	8.1347		5.0006	110.00	0.13175	8.1777
	7.0006	40.36				7.0006	40.49				7.0006	40.24		
Mar. 27.	5.1673	99.92	0.13713	8.1438	July 29	5.1673	100.01	0.13438	8.1523	Nov. 27..	5.1673	99.80	0.13547	8.1428
	6.5008	50.51				6.5008	50.42				6.5008	50.40		
	5.1673	99.92	0.13557	8.1585		5.1673	100.01	0.13822	8.1162		5.1673	99.80	0.13446	8.1596
	6.7510	45.07				6.7510	45.21				6.7510	44.99		
	5.1673	99.92	0.13338	8.1790		5.1673	100.01	0.13626	8.1345		5.1673	99.80	0.13146	8.1803
	7.0006	40.36				7.0006	40.49				7.0006	40.24		
	5.3342	91.11	0.13537	8.1604		5.3342	91.20	0.13212	8.1736		5.3342	90.77	0.13580	8.1398
	6.5008	50.51				6.5008	50.42				6.5008	50.40		
	5.3342	91.11	0.13400	8.1732		5.3342	91.20	0.13682	8.1292		5.3342	90.77	0.13462	8.1506
	6.7510	45.07				6.7510	45.21				6.7510	44.99		
	5.3342	91.11	0.13215	8.1907		5.3342	91.20	0.13490	8.1472		5.3342	90.77	0.13133	8.1816
	7.0006	40.36				7.0006	40.49				7.0006	40.24		
Apr. 28	5.0006	109.38	0.13538	8.1520	Aug.	5.0006	110.04	0.13292	8.1658	Dec. 22.	5.0006	109.98	0.13539	8.0940
	6.5008	50.23				6.5008	50.29				6.5008	50.39		
	5.0006	109.38	0.13196	8.1840		5.0006	110.04	0.14109	8.0895		5.0006	109.98	0.13446	8.1025
	6.7510	44.73				6.7510	45.31				6.7510	44.98		
	5.0006	109.38	0.13558	8.1500		5.0006	110.04	0.13878	8.1110		5.0006	109.98	0.13426	8.1044
	7.0006	40.30				7.0006	40.57				7.0006	40.35		
	5.1673	99.45	0.13410	8.1642		5.1673	99.78	0.13306	8.1460		5.1673	99.86	0.13481	8.0993
	6.5008	50.23				6.5008	50.29				6.5008	50.39		
	5.1673	99.45	0.13055	8.1975		5.1673	99.78	0.14189	8.0820		5.1673	99.86	0.13387	8.1082
	6.7510	44.73				6.7510	45.31				6.7510	44.98		
	5.1673	99.45	0.13469	8.1604		5.1673	99.78	0.13931	8.1060		5.1673	99.86	0.13377	8.1090
	7.0006	40.30				7.0006	40.57				7.0006	40.35		
May 28	5.3342	90.36	0.13532	8.1527	No observations of Deflection or Vibration made during this month.	5.3342	90.84	0.13222	8.1726		5.3342	90.74	0.13584	8.0898
	6.5008	50.23				6.5008	50.29				6.5008	50.39		
	5.3342	90.36	0.13118	8.1914		5.3342	90.84	0.14212	8.0798		5.3342	90.74	0.13461	8.1012
	6.7510	44.73				6.7510	45.31				6.7510	44.98		
	5.3342	90.36	0.13556	8.1504		5.3342	90.84	0.13927	8.1064		5.3342	90.74	0.13436	8.1034
	7.0006	40.30				7.0006	40.57				7.0006	40.35		
	5.0006	109.76	0.13432	8.1518							5.0006	110.18	0.13533	8.1102
	6.5008	50.28									6.5008	50.44		
	5.0006	109.74	0.13548	8.1410							5.0006	110.18	0.13648	8.0995
	6.7510	44.98									6.7510	45.12		
	5.0006	109.74	0.13228	8.1708							5.0006	110.18	0.13587	8.1052
	7.0006	40.22									7.0006	40.46		
June 28	5.1673	99.38	0.13578	8.1382							5.1673	99.82	0.13627	8.1014
	6.5008	50.28									6.5008	50.44		
	5.1673	99.38	0.13674	8.1290							5.1673	99.82	0.13734	8.0915
	6.7510	44.98									6.7510	45.12		
	5.1673	99.38	0.13315	8.1628							5.1673	99.82	0.13656	8.0988
	7.0006	40.22									7.0006	40.46		
	5.3342	90.52	0.13511	8.1444							5.3342	90.92	0.13542	8.1092
	6.5008	50.28									6.5008	50.44		
	5.3342	90.52	0.13631	8.1332							5.3342	90.92	0.13676	8.0970
	6.7510	44.98									6.7510	45.12		
	5.3342	90.52	0.13246	8.1692							5.3342	90.92	0.13601	8.1038
	7.0006	40.22									7.0006	40.46		

CORRECTED TIMES OF VIBRATION IN SECONDS, AND LOGARITHMIC VALUES OF $m X$ USED IN REDUCING THE ABOVE OBSERVATIONS.

Jan. 28	s	Log. $m X$	Mar. 27	s	Log. $m X$	June 4	s	Log. $m X$	July 29	s	Log. $m X$	Sept. 29	s	Log. $m X$	Nov. 27	s	Log. $m X$
Jan. 28	9.764	0.45249	Mar. 27	9.776	0.45143	June 4	9.794	0.44983	July 29	9.787	0.45045	Sept. 29	9.777	0.45133	Nov. 27	9.846	0.44523
Feb. 27	9.766	0.45231	Apr. 28	9.788	0.45035	June 25	9.787	0.45045	Aug.	—	—	Oct. 27	9.786	0.45053	Dec. 22	9.827	0.44691

1852.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.	1852.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.	1852.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.
Jan. 30.	5.0006	109.89	0.13633	8.0917	May 27.	5.0006	110.16	0.13164	8.1296	Sept. 28.	5.0006	110.52	0.13445	8.1102
	6.5008	50.41				6.5008	50.26				6.5008	50.49		
	5.0006	109.89	0.13403	8.1132		5.0006	110.16	0.13572	8.0915		5.0006	110.52	0.13189	8.1342
	6.7510	44.94				6.7510	45.08				6.7510	44.98		
	5.0006	109.89	0.13265	8.1260		5.0006	110.16	0.13136	8.1322		5.0006	110.52	0.13207	8.1324
	7.0006	40.26				7.0006	40.25				7.0006	40.35		
	5.1673	99.79	0.13580	8.0966		5.1673	99.83	0.13201	8.1262		5.1673	100.25	0.13427	8.1118
	6.5008	50.41				6.5008	50.26				6.5008	50.49		
	5.1673	99.79	0.13335	8.1195		5.1673	99.83	0.13635	8.0858		5.1673	100.25	0.13149	8.1378
	6.7510	44.94				6.7510	45.08				6.7510	44.98		
Feb. 23.	5.1673	99.79	0.13200	8.1320	June 29.	5.1673	99.83	0.13158	8.1302	Oct. 28.	5.1673	100.25	0.13175	8.1354
	7.0006	40.26				7.0006	40.25				7.0006	40.35		
	5.3342	90.78	0.13600	8.0948		5.3342	90.98	0.13008	8.1442		5.3342	91.06	0.13537	8.1016
	6.5008	50.41				6.5008	50.26				6.5008	50.49		
	5.3342	90.78	0.13328	8.1200		5.3342	90.98	0.13526	8.0958		5.3342	91.06	0.13209	8.1322
	6.7510	44.94				6.7510	45.08				6.7510	44.98		
	5.3342	90.78	0.13179	8.1342		5.3342	90.98	0.13023	8.1430		5.3342	91.06	0.13225	8.1308
	7.0006	40.26				7.0006	40.25				7.0006	40.35		
	5.0006	109.90	0.13606	8.0958		5.0006	110.25	0.13866	8.0728		5.0006	109.99	0.13681	8.0913
	6.5008	50.40				6.5008	50.62				6.5008	50.46		
Mar. 27.	5.0006	109.90	0.13715	8.0858	July 27.	5.0006	110.25	0.13614	8.0960	Nov. 30.	5.0006	109.99	0.13483	8.1098
	6.7510	45.09				6.7510	45.12				6.7510	45.00		
	5.0006	109.90	0.13525	8.1034		5.0006	110.25	0.13601	8.0973		5.0006	109.99	0.13445	8.1133
	7.0006	40.38				7.0006	40.48				7.0006	40.36		
	5.1673	99.76	0.13578	8.0986		5.1673	100.07	0.13859	8.0733		5.1673	99.77	0.13710	8.0886
	6.5008	50.40				6.5008	50.62				6.5008	50.46		
	5.1673	99.76	0.13701	8.0870		5.1673	100.07	0.13585	8.0988		5.1673	99.77	0.13488	8.1092
	6.7510	45.09				6.7510	45.12				6.7510	45.00		
	5.1673	99.76	0.13500	8.1057		5.1673	100.07	0.13575	8.0997		5.1673	99.77	0.13447	8.1132
	7.0006	40.38				7.0006	40.48				7.0006	40.36		
Apr. 27.	5.3342	90.86	0.13495	8.1062	Aug. 26.	5.3342	91.07	0.13863	8.0730	Dec. 24.	5.3342	90.92	0.13594	8.0993
	6.5008	50.40				6.5008	50.62				6.5008	50.46		
	5.3342	90.86	0.13647	8.0920		5.3342	91.07	0.13559	8.1012		5.3342	90.92	0.13371	8.1202
	6.7510	45.09				6.7510	45.12				6.7510	45.00		
	5.3342	90.86	0.13436	8.1117		5.3342	91.07	0.13551	8.1020		5.3342	90.92	0.13344	8.1227
	7.0006	40.38				7.0006	40.48				7.0006	40.36		
	5.0006	110.04	0.13653	8.0908		5.0006	110.44	0.13782	8.0862		5.0006	109.41	0.13443	8.1152
	6.5008	50.46				6.5008	50.63				6.5008	50.19		
	5.0006	110.04	0.13736	8.0830		5.0006	110.44	0.13525	8.0913		5.0006	109.41	0.13545	8.1057
	6.7510	45.13				6.7510	45.12				6.7510	44.90		
May 27.	5.0006	110.04	0.13469	8.1080	Sept. 28.	5.0006	110.44	0.13370	8.1244	Nov. 30.	5.0006	109.41	0.13177	8.1402
	7.0006	40.38				7.0006	40.41				7.0006	40.13		
	5.1673	99.79	0.13695	8.0868		5.1673	100.16	0.13817	8.0828		5.1673	99.33	0.13408	8.1184
	6.5008	50.46				6.5008	50.63				6.5008	50.19		
	5.1673	99.79	0.13776	8.0792		5.1673	100.16	0.13529	8.1096		5.1673	99.33	0.13525	8.1076
	6.7510	45.13				6.7510	45.12				6.7510	44.90		
	5.1673	99.79	0.13484	8.1064		5.1673	100.16	0.13364	8.1250		5.1673	99.33	0.13133	8.1442
	7.0006	40.38				7.0006	40.41				7.0006	40.13		
	5.3342	90.83	0.13681	8.0882		5.3342	91.20	0.13766	8.0874		5.3342	90.50	0.13296	8.1288
	6.5008	50.46				6.5008	50.63				6.5008	50.19		
June 29.	5.3342	90.83	0.13773	8.0796	Oct. 28.	5.3342	91.20	0.13459	8.1162	Dec. 24.	5.3342	90.50	0.13446	8.1148
	6.7510	45.13				6.7510	45.12				6.7510	44.90		
	5.3342	90.83	0.13455	8.1092		5.3342	91.20	0.13289	8.1320		5.3342	90.50	0.13031	8.1538
	7.0006	40.38				7.0006	40.41				7.0006	40.13		
	5.0006	110.21	0.13826	8.0772		5.0006	110.45	0.13630	8.0913		5.0006	110.12	0.13376	8.1255
	6.5008	50.59				6.5008	50.56				6.5008	50.35		
	5.0006	110.21	0.13592	8.0988		5.0006	110.45	0.13795	8.0758		5.0006	110.12	0.13654	8.0995
	6.7510	45.10				6.7510	45.25				6.7510	45.11		
	5.0006	110.21	0.13442	8.1128		5.0006	110.45	0.13518	8.1016		5.0006	110.12	0.13084	8.1528
	7.0006	40.40				7.0006	40.48				7.0006	40.22		
July 27.	5.1673	99.90	0.13913	8.0690	Nov. 30.	5.1673	100.08	0.13714	8.0833	Dec. 24.	5.1673	99.88	0.13374	8.1257
	6.5008	50.59				6.5008	50.56				6.5008	50.35		
	5.1673	99.90	0.13640	8.0943		5.1673	100.08	0.13875	8.0684		5.1673	99.88	0.13674	8.0977
	6.7510	45.10				6.7510	45.25				6.7510	45.11		
	5.1673	99.90	0.13474	8.1098		5.1673	100.08	0.13569	8.0970		5.1673	99.88	0.13060	8.1552
	7.0006	40.40				7.0006	40.48				7.0006	40.22		
	5.3342	91.02	0.13833	8.0764		5.3342	90.92	0.13856	8.0702		5.3342	90.99	0.13236	8.1386
	6.5008	50.59				6.5008	50.56				6.5008	50.35		
	5.3342	91.02	0.13548	8.1028		5.3342	90.92	0.14005	8.0564		5.3342	90.99	0.13596	8.1050
	6.7510	45.10				6.7510	45.25				6.7510	45.11		
Aug. 26.	5.3342	91.02	0.13380	8.1186	Dec. 24.	5.3342	90.92	0.13650	8.0893	Nov. 30.	5.3342	90.99	0.12939	8.1666
	7.0006	40.40				7.0006	40.48				7.0006	40.22		

CORRECTED TIMES OF VIBRATION IN SECONDS, AND LOGARITHMIC VALUES OF mX USED IN REDUCING THE ABOVE OBSERVATIONS.

Jan. 30	s	Log. mX	Mar. 27	s	Log. mX	May 27	s	Log. mX	July 27	s	Log. mX	Sept. 28	s	Log. mX	Nov. 30	s	Log. mX
Jan. 30	9.838	0.44593	Mar. 27	9.837	0.44603	May 27	9.845	0.44531	July 27	9.828	0.44681	Sept. 28	9.837	0.44603	Nov. 30	9.831	0.44655
Feb. 23	9.836	0.44611	Apr. 27	9.834	0.44629	June 29	9.835	0.44621	Aug. 26	9.839	0.44585	Oct. 28	9.833	0.44637	Dec. 24	9.826	0.44699

1853.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.	1853.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.	1853.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.
Jan. 27.	5.0006	109.69	0.13494	8.1195	May 31.	5.0006	110.07	0.13509	8.0948	Sept. 26.	5.0006	110.14	0.13469	8.1053
	6.5008	50.29				6.5008	50.40				6.5008	50.40		
	5.0006	109.69	0.13604	8.1092		5.0006	110.07	0.13550	8.0928		5.0006	110.14	0.13602	8.0928
	6.7510	44.99				6.7510	45.05				6.7510	45.09		
	5.0006	109.69	0.13630	8.1068		5.0006	110.07	0.13346	8.1118		5.0006	110.14	0.13143	8.1358
	7.0006	40.39				7.0006	40.33				7.0006	40.25		
	5.1673	99.52	0.13499	8.1192		5.1673	99.90	0.13475	8.0998		5.1673	99.78	0.13565	8.0964
	6.5008	50.29				6.5008	50.40				6.5008	50.40		
	5.1673	99.52	0.13617	8.1082		5.1673	99.90	0.13524	8.0954		5.1673	99.78	0.13690	8.0846
	6.7510	44.99				6.7510	45.05				6.7510	45.09		
	5.1673	99.52	0.13645	8.1055		5.1673	99.90	0.13310	8.1152		5.1673	99.78	0.13184	8.1318
	7.0006	40.39				7.0006	40.33				7.0006	40.25		
	5.3342	90.52	0.13538	8.1154		5.3342	90.87	0.13485	8.0990		5.3342	90.87	0.13485	8.1038
	6.5008	50.29				6.5008	50.40				6.5008	50.40		
Feb. 24.	5.3342	90.52	0.13661	8.1040	June 29.	5.3342	90.87	0.13536	8.0942	Oct. 27.	5.3342	90.87	0.13639	8.0895
	6.7510	44.99				6.7510	45.05				6.7510	45.09		
	5.3342	90.52	0.13681	8.1022		5.3342	90.87	0.13301	8.1162		5.3342	90.87	0.13096	8.1402
	7.0006	40.39				7.0006	40.33				7.0006	40.25		
	5.0006	109.70	0.13529	8.1096		5.0006	110.52	0.13296	8.1198		5.0006	109.86	0.13546	8.0948
	6.5008	50.31				6.5008	50.42				6.5008	50.36		
	5.0006	109.70	0.13810	8.0833		5.0006	110.52	0.13677	8.0844		5.0006	109.86	0.13311	8.1168
	6.7510	45.09				6.7510	45.21				6.7510	44.89		
	5.0006	109.70	0.13343	8.1268		5.0006	110.52	0.13339	8.1160		5.0006	109.86	0.13410	8.1076
	7.0006	40.26				7.0006	40.41				7.0006	40.32		
	5.1673	99.54	0.13529	8.1096		5.1673	100.11	0.13366	8.1133		5.1673	99.64	0.13575	8.0922
	6.5008	50.31				6.5008	50.42				6.5008	50.36		
	5.1673	99.54	0.13833	8.0812		5.1673	100.11	0.13765	8.0762		5.1673	99.64	0.13313	8.1167
	6.7510	45.09				6.7510	45.21				6.7510	44.89		
Mar. 22.	5.1673	99.54	0.13330	8.1282	July 29.	5.1673	100.11	0.13390	8.1112	Nov. 28.	5.1673	99.64	0.13420	8.1066
	7.0006	40.26				7.0006	40.41				7.0006	40.32		
	5.3342	90.58	0.13531	8.1094		5.3342	91.14	0.13272	8.1222		5.3342	90.65	0.13595	8.0904
	6.5008	50.31				6.5008	50.42				6.5008	50.36		
	5.3342	90.58	0.13866	8.0782		5.3342	91.14	0.13731	8.0794		5.3342	90.65	0.13302	8.1176
	6.7510	45.09				6.7510	45.21				6.7510	44.89		
	5.3342	90.58	0.13312	8.1298		5.3342	91.14	0.13327	8.1170		5.3342	90.65	0.13419	8.1068
	7.0006	40.26				7.0006	40.41				7.0006	40.32		
	5.0006	109.76	0.13581	8.1006		5.0006	110.05	0.13226	8.1248		5.0006	109.57	0.13624	8.1048
	6.5008	50.35				6.5008	50.26				6.5008	50.32		
	5.0006	109.76	0.13381	8.1193		5.0006	110.05	0.13540	8.0954		5.0006	109.57	0.13258	8.1200
	6.7510	44.90				6.7510	45.04				6.7510	44.80		
	5.0006	109.76	0.13099	8.1458		5.0006	110.05	0.13442	8.1048		5.0006	109.57	0.13592	8.0890
	7.0006	40.16				7.0006	40.37				7.0006	40.35		
	5.1673	99.25	0.13837	8.0768		5.1673	99.74	0.13267	8.1210		5.1673	99.51	0.13575	8.0906
Apr. 25.	6.5008	50.35			Aug. 26.	6.5008	50.26			Dec. 19.	6.5008	50.32		
	5.1673	99.25	0.13573	8.1014		5.1673	99.74	0.13599	8.0900		5.1673	99.51	0.13182	8.1272
	6.7510	44.90				6.7510	45.04				6.7510	44.80		
	5.1673	99.25	0.13244	8.1320		5.1673	99.74	0.13486	8.1004		5.1673	99.51	0.13556	8.0922
	7.0006	40.16				7.0006	40.37				7.0006	40.35		
	5.3342	90.50	0.13714	8.0882		5.3342	90.70	0.13283	8.1195		5.3342	90.48	0.13656	8.0830
	6.5008	50.35				6.5008	50.26				6.5008	50.32		
	5.3342	90.50	0.13446	8.1132		5.3342	90.70	0.13645	8.0858		5.3342	90.48	0.13207	8.1250
	6.7510	44.90				6.7510	45.04				6.7510	44.80		
	5.3342	90.50	0.13107	8.1450		5.3342	90.70	0.13515	8.0978		5.3342	90.48	0.13606	8.0876
	7.0006	40.16				7.0006	40.37				7.0006	40.35		
	5.0006	109.42	0.13645	8.0840		5.0006	110.19	0.13505	8.1028		5.0006	109.55	0.13572	8.1030
	6.5008	50.29				6.5008	50.43				6.5008	50.29		
	5.0006	109.42	0.13497	8.0978		5.0006	110.19	0.13410	8.1117		5.0006	109.55	0.13500	8.1098
	6.7510	44.88				6.7510	45.01				6.7510	44.91		
Apr. 25.	5.0006	109.42	0.13523	8.0954	Aug. 26.	5.0006	110.19	0.13319	8.1202	Dec. 19.	5.0006	109.55	0.13384	8.1206
	7.0006	40.29				7.0006	40.34				7.0006	40.25		
	5.1673	99.49	0.13520	8.0956		5.1673	99.78	0.13633	8.0910		5.1673	99.40	0.13587	8.1018
	6.5008	50.29				6.5008	50.43				6.5008	50.29		
	5.1673	99.49	0.13380	8.1087		5.1673	99.78	0.13506	8.1028		5.1673	99.40	0.13503	8.1096
	6.7510	44.88				6.7510	45.01				6.7510	44.91		
	5.1673	99.49	0.13427	8.1044		5.1673	99.78	0.13397	8.1130		5.1673	99.40	0.13380	8.1210
	7.0006	40.29				7.0006	40.34				7.0006	40.25		
	5.3342	90.58	0.13480	8.0993		5.3342	90.99	0.13448	8.1082		5.3342	90.80	0.13264	8.1318
	6.5008	50.29				6.5008	50.43				6.5008	50.29		
	5.3342	90.58	0.13332	8.1132		5.3342	90.99	0.13343	8.1180		5.3342	90.80	0.13234	8.1347
	6.7510	44.88				6.7510	45.01				6.7510	44.91		
	5.3342	90.58	0.13390	8.1078		5.3342	90.99	0.13248	8.1268		5.3342	90.80	0.13142	8.1433
	7.0006	40.29				7.0006	40.34				7.0006	40.25		

CORRECTED TIMES OF VIBRATION IN SECONDS, AND LOGARITHMIC VALUES OF mX USED IN REDUCING THE ABOVE OBSERVATIONS.

	s	Log. mX		s	Log. mX		s	Log. mX		s	Log. mX		s	Log. mX
Jan. 27	9.820	0.44753	Mar. 22	9.833	0.44637	May 31	9.846	0.44523	July 29	9.844	0.44541	Sept. 26	9.840	0.44575
Feb. 24	9.828	0.44681	Apr. 25	9.846	0.44523	June 29	9.842	0.44559	Aug. 26	9.839	0.44585	Oct. 27	9.844	0.44541
												Nov. 28	9.846	0.44523
												Dec. 19	9.831	0.44655

1854.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.	1854.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.	1854.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.
Jan. 26.	5.0006	109.47	0.13473	8.1042	May 31	5.0006	109.70	0.12876	8.1518	Sept. 25	5.0006	104.25	0.11428	8.0636
	6.5008	50.22				6.5008	50.00				6.5008	47.86		
	5.0006	109.47	0.13112	8.1378		5.0006	109.70	0.13045	8.1360		5.0006	104.25	0.11064	8.0975
	6.7510	44.71				6.7510	44.73				6.7510	42.61		
	5.0006	109.47	0.13481	8.1034		5.0006	109.70	0.13277	8.1142		5.0006	104.25	0.11475	8.0592
	7.0006	40.28				7.0006	40.23				7.0006	38.41		
	5.1673	99.39	0.13434	8.1078		5.1673	99.42	0.12898	8.1497		5.1673	94.48	0.11530	8.0542
	6.5008	50.22				6.5008	50.00				6.5008	47.86		
	5.1673	99.39	0.13046	8.1440		5.1673	99.42	0.13075	8.1332		5.1673	94.48	0.11114	8.0928
	6.7510	44.71				6.7510	44.73				6.7510	42.61		
	5.1673	99.39	0.13455	8.1058		5.1673	99.42	0.13322	8.1100		5.1673	94.48	0.11550	8.0523
	7.0006	40.28				7.0006	40.23				7.0006	38.41		
Feb. 23.	5.3342	90.45	0.13424	8.1087	June 28	5.3342	90.55	0.12744	8.1642	Oct. 26.	5.3342	85.89	0.11648	8.0432
	6.5008	50.22				6.5008	50.00				6.5008	47.86		
	5.3342	90.45	0.12996	8.1488		5.3342	90.55	0.12970	8.1430		5.3342	85.89	0.11169	8.0876
	6.7510	44.71				6.7510	44.73				6.7510	42.61		
	5.3342	90.45	0.13448	8.1064		5.3342	90.55	0.13255	8.1163		5.3342	85.89	0.11631	8.0447
	7.0006	40.28				7.0006	40.23				7.0006	38.41		
	5.0006	109.69	0.13474	8.1090		5.0006	110.22	0.13320	8.1234		5.0006	104.35	0.11436	8.0582
	6.5008	50.28				6.5008	50.35				6.5008	47.89		
	5.0006	109.69	0.13478	8.1087		5.0006	110.22	0.13268	8.1283		5.0006	104.35	0.11039	8.0950
	6.7510	44.93				6.7510	44.95				6.7510	42.62		
	5.0006	109.69	0.13414	8.1146		5.0006	110.22	0.13372	8.1186		5.0006	104.35	0.11301	8.0707
	7.0006	40.29				7.0006	40.37				7.0006	38.35		
5.1673	99.55	0.13457	8.1108	5.1673	99.76	0.13463	8.1102	5.1673	94.72	0.11419	8.0597			
6.5008	50.28			6.5008	50.35			6.5008	47.89					
5.1673	99.55	0.13461	8.1104	5.1673	99.76	0.13378	8.1180	5.1673	94.72	0.10987	8.0998			
6.7510	44.93			6.7510	44.95			6.7510	42.62					
5.1673	99.55	0.13397	8.1163	5.1673	99.76	0.13476	8.1088	5.1673	94.72	0.11279	8.0728			
7.0006	40.29			7.0006	40.37			7.0006	38.35					
Mar. 30	5.3342	90.43	0.13601	8.0973	July 27.	5.3342	90.69	0.13529	8.1040	Dec. 6.	5.3342	86.21	0.11407	8.0608
	6.5008	50.28				6.5008	50.35				6.5008	47.89		
	5.3342	90.43	0.13578	8.0993		5.3342	90.69	0.13424	8.1137		5.3342	86.21	0.10932	8.1052
	6.7510	44.93				6.7510	44.95				6.7510	42.62		
	5.3342	90.43	0.13487	8.1080		5.3342	90.69	0.13521	8.1048		5.3342	86.21	0.11258	8.0748
	7.0006	40.29				7.0006	40.37				7.0006	38.35		
	5.0006	109.69	0.13389	8.1096		5.0006	109.74	0.13192	8.1312		5.0006	104.19	0.11318	8.0828
	6.5008	50.24				6.5008	50.16				6.5008	47.79		
	5.0006	109.69	0.13178	8.1292		5.0006	109.74	0.13389	8.1128		5.0006	104.19	0.10876	8.1240
	6.7510	44.79				6.7510	44.90				6.7510	42.51		
	5.0006	109.69	0.13761	8.0750		5.0006	109.74	0.13436	8.1083		5.0006	104.19	0.11440	8.0714
	7.0006	40.45				7.0006	40.31				7.0006	38.38		
5.1673	99.52	0.13385	8.1100	5.1673	99.81	0.12984	8.1506	5.1673	94.41	0.11422	8.0732			
6.5008	50.24			6.5008	50.16			6.5008	47.79					
5.1673	99.52	0.13153	8.1317	5.1673	99.81	0.13234	8.1272	5.1673	94.41	0.10921	8.1197			
6.7510	44.79			6.7510	44.90			6.7510	42.51					
5.1673	99.52	0.13786	8.0726	5.1673	99.81	0.13310	8.1200	5.1673	94.41	0.11522	8.0638			
7.0006	40.45			7.0006	40.31			7.0006	38.38					
Apr. 28	5.3342	90.58	0.13349	8.1133	Sept. 1.	5.3342	90.72	0.13001	8.1492	do. 23.	5.3342	85.96	0.11395	8.0755
	6.5008	50.24				6.5008	50.16				6.5008	47.79		
	5.3342	90.58	0.13101	8.1366		5.3342	90.72	0.13275	8.1234		5.3342	85.96	0.10848	8.1266
	6.7510	44.79				6.7510	44.90				6.7510	42.51		
	5.3342	90.58	0.13795	8.0718		5.3342	90.72	0.13348	8.1165		5.3342	85.96	0.11510	8.0650
	7.0006	40.45				7.0006	40.31				7.0006	38.38		
	5.0006	109.61	0.13349	8.1083		5.0006	104.11	0.11288	8.0758		5.0006	103.94	0.11001	8.1057
	6.5008	50.20				6.5008	47.76				6.5008	47.58		
	5.0006	109.61	0.13535	8.0910		5.0006	104.11	0.10705	8.1302		5.0006	103.94	0.11137	8.0930
	6.7510	44.94				6.7510	42.42				6.7510	42.57		
	5.0006	109.61	0.13360	8.1072		5.0006	104.11	0.11261	8.0783		5.0006	103.94	0.11044	8.1018
	7.0006	40.25				7.0006	38.29				7.0006	38.16		
5.1673	99.25	0.13488	8.0954	5.1673		94.48	0.11282	8.0764	5.1673		94.35	0.10950	8.1106	
6.5008	50.20			6.5008		47.76			6.5008		47.58			
5.1673	99.25	0.13663	8.0790	5.1673		94.48	0.10646	8.1358	5.1673		94.35	0.11108	8.0958	
6.7510	44.94			6.7510		42.42			6.7510		42.57			
5.1673	99.25	0.13457	8.0982	5.1673		94.48	0.11255	8.0788	5.1673		94.35	0.11014	8.1046	
7.0006	40.25			7.0006	38.29	7.0006			38.16					
5.3342	90.40	0.13418	8.1018	5.3342	86.03	0.11229	8.0812	5.3342	85.81	0.10968	8.1088			
6.5008	50.20			6.5008	47.76			6.5008	47.58					
5.3342	90.40	0.13625	8.0826	5.3342	86.03	0.10536	8.1462	5.3342	85.81	0.11135	8.0932			
6.7510	44.94			6.7510	42.42			6.7510	42.57					
5.3342	90.40	0.13406	8.1028	5.3342	86.03	0.11216	8.0826	5.3342	85.81	0.11027	8.1032			
7.0006	40.25			7.0006	38.29			7.0006	38.16					

1855.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.	1855.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.	1855.	Distances in feet. R; R.	Deflection in scale divisions. u; u.	Log. $\frac{m}{X}$	X in British units.
Jan. 29	5'0006	103'73	0'11302	8'0874	May 29.	5'0006	103'82	0'11206	8'0842	Sept. 27	5'0006	103'91	0'11109	8'0956
	6'5008	47'66				6'5008	47'64				6'5008	47'62		
	5'0006	103'73	0'11464	8'0724		5'0006	103'82	0'11085	8'0954		5'0006	103'91	0'11152	8'0917
	6'7510	42'67				6'7510	42'52				6'7510	42'57		
	5'0006	103'73	0'10786	8'1356		5'0006	103'82	0'11003	8'1030		5'0006	103'91	0'11032	8'1028
	7'0006	38'01				7'0006	38'12				7'0006	38'15		
	5'1673	93'98	0'11445	8'0740		5'1673	94'10	0'11295	8'0758		5'1673	94'31	0'11084	8'0980
	6'5008	47'66				6'5008	47'64	0'11295	8'0758		6'5008	47'62	0'11084	8'0980
	5'1673	93'98	0'11585	8'0610		5'1673	94'10	0'11145	8'0898		5'1673	94'31	0'11133	8'0934
	6'7510	42'67				6'7510	42'52				6'7510	42'57		
	5'1673	93'98	0'10841	8'1304		5'1673	94'10	0'11049	8'0988		5'1673	94'31	0'11009	8'1050
	7'0006	38'01				7'0006	38'12				7'0006	38'15		
	5'3342	85'78	0'11219	8'0950		5'3342	85'78	0'11165	8'0880		5'3342	85'70	0'11194	8'0878
	6'5008	47'66				6'5008	47'64				6'5008	47'62		
Mar. 1	5'3342	85'78	0'11428	8'0757	June 30.	5'3342	85'78	0'11025	8'1010	Oct. 30	5'3342	85'70	0'11226	8'0848
	6'7510	42'67				6'7510	42'52				6'7510	42'57		
	5'3342	85'78	0'10641	8'1492		5'3342	85'78	0'10939	8'1090		5'3342	85'70	0'11076	8'0988
	7'0006	38'01				7'0006	38'12				7'0006	38'15		
	5'0006	103'64	0'11247	8'0788		5'0006	104'00	0'11233	8'0816		5'0006	104'02	0'11419	8'0636
	6'5008	47'61				6'5008	47'70				6'5008	47'79		
	5'0006	103'64	0'11239	8'0796		5'0006	104'00	0'11176	8'0870		5'0006	104'02	0'10986	8'1040
	6'7510	42'55				6'7510	42'60				6'7510	42'52		
	5'0006	103'64	0'11194	8'0838		5'0006	104'00	0'10994	8'1040		5'0006	104'02	0'11354	8'0698
	7'0006	38'17				7'0006	38'15				7'0006	38'31		
	5'1673	94'09	0'11231	8'0803		5'1673	94'06	0'11474	8'0593		5'1673	94'50	0'11352	8'0700
	6'5008	47'61				6'5008	47'70				6'5008	47'79		
	5'1673	94'09	0'11226	8'0808		5'1673	94'06	0'11367	8'0692		5'1673	94'50	0'10889	8'1130
	6'7510	42'55				6'7510	42'60				6'7510	42'52		
Mar. 30	5'1673	94'09	0'11178	8'0854	July 27	5'1673	94'06	0'11145	8'0898	Nov. 22	5'1673	94'50	0'11302	8'0746
	7'0006	38'17				7'0006	38'15				7'0006	38'31		
	5'3342	85'58	0'11290	8'0750		5'3342	85'76	0'11354	8'0705		5'3342	85'89	0'11468	8'0592
	6'5008	47'61				6'5008	47'70				6'5008	47'79		
	5'3342	85'58	0'11273	8'0764		5'3342	85'76	0'11259	8'0792		5'3342	85'89	0'10935	8'1087
	6'7510	42'55				6'7510	42'60				6'7510	42'52		
	5'3342	85'58	0'11212	8'0822		5'3342	85'76	0'11035	8'1000		5'3342	85'89	0'11374	8'0678
	7'0006	38'17				7'0006	38'15				7'0006	38'31		
	5'0006	103'34	0'11600	8'0500		5'0006	103'85	0'10318	8'1666		5'0006	104'30	0'11471	8'0582
	6'5008	47'69				6'5008	47'25				6'5008	47'89		
	5'0006	103'34	0'10695	8'1343		5'0006	103'85	0'11427	8'0628		5'0006	104'30	0'10845	8'1163
	6'7510	42'24				6'7510	42'68				6'7510	42'52		
	5'0006	103'34	0'12050	8'0085		5'0006	103'85	0'11104	8'0930		5'0006	104'30	0'11027	8'0993
	7'0006	38'49				7'0006	38'17				7'0006	38'22		
	5'1673	94'16	0'11372	8'0712		5'1673	94'25	0'10213	8'1764		5'1673	94'05	0'11938	8'0150
Mar. 30	6'5008	47'69			July 27	6'5008	47'25			Nov. 22	6'5008	47'89		
	5'1673	94'16	0'10418	8'1604		5'1673	94'25	0'11438	8'0620		5'1673	94'05	0'11177	8'0854
	6'7510	42'24				6'7510	42'68				6'7510	42'52		
	5'1673	94'16	0'11926	8'0200		5'1673	94'25	0'11092	8'0942		5'1673	94'05	0'11323	8'0718
	7'0006	38'49				7'0006	38'17				7'0006	38'22		
	5'3342	85'43	0'11663	8'0442		5'3342	86'04	0'09802	8'2152		5'3342	85'85	0'11779	8'0295
	6'5008	47'69				6'5008	47'25				6'5008	47'89		
	5'3342	85'43	0'10558	8'1472		5'3342	86'04	0'11240	8'0803		5'3342	85'85	0'10968	8'1050
	6'7510	42'24				6'7510	42'68				6'7510	42'52		
	5'3342	85'43	0'12164	7'9980		5'3342	86'04	0'10893	8'1126		5'3342	85'85	0'11161	8'0868
	7'0006	38'49				7'0006	38'17				7'0006	38'22		
	5'0006	103'24	0'11020	8'1016		5'0006	104'12	0'10715	8'1310		5'0006	103'86	0'11528	8'0664
	6'5008	47'40				6'5008	47'50				6'5008	47'80		
	5'0006	103'24	0'11129	8'0913		5'0006	104'12	0'11004	8'1040		5'0006	103'86	0'11572	8'0623
	6'7510	42'41				6'7510	42'55				6'7510	42'75		
Apr. 28	5'0006	103'24	0'11113	8'0928	Aug. 29	5'0006	104'12	0'11266	8'0796	Dec. 24	5'0006	103'86	0'10978	8'1176
	7'0006	38'06				7'0006	38'29				7'0006	38'12		
	5'1673	93'90	0'10863	8'1162		5'1673	94'00	0'11028	8'1018		5'1673	94'40	0'11448	8'0738
	6'5008	47'40				6'5008	47'50				6'5008	47'80		
	5'1673	93'90	0'11005	8'1028		5'1673	94'00	0'11282	8'0782		5'1673	94'40	0'11507	8'0682
	6'7510	42'41				6'7510	42'55				6'7510	42'75		
	5'1673	93'90	0'11009	8'1025		5'1673	94'00	0'11524	8'0556		5'1673	94'40	0'10880	8'1268
	7'0006	38'06				7'0006	38'29				7'0006	38'12		
	5'3342	85'69	0'10592	8'1416		5'3342	85'64	0'10921	8'1117		5'3342	85'94	0'11436	8'0750
	6'5008	47'40				6'5008	47'50				6'5008	47'80		
	5'3342	85'69	0'10805	8'1216		5'3342	85'64	0'11222	8'0837		5'3342	85'94	0'11504	8'0686
	6'7510	42'41				6'7510	42'55				6'7510	42'75		
	5'3342	85'69	0'10840	8'1184		5'3342	85'64	0'11492	8'0586		5'3342	85'94	0'10820	8'1324
	7'0006	38'06				7'0006	38'29				7'0006	38'12		

CORRECTED TIMES OF VIBRATION IN SECONDS, AND LOGARITHMIC VALUES OF mX USED IN REDUCING THE ABOVE OBSERVATIONS.

	s	Log. mX		s	Log. mX		s	Log. mX		s	Log. mX		s	Log. mX		s	Log. mX
Jan. 29	10'087	0'42216	Mar. 30	10'099	0'42112	May 29	10'102	0'42086	July 27	10'103	0'42078	Sept. 27	10'099	0'42112	Nov. 22	10'104	0'42070
Mar. 1	10'104	0'42070	Apr. 28	10'102	0'42086	June 30	10'102	0'42086	Aug. 29	10'101	0'42096	Oct. 30	10'103	0'42078	Dec. 24	10'087	0'42216

Date.	Simultaneous Readings of Declination Magnetometer A, and of that in the Deflection Room, B.								Readings of Magnetometer A, corrected for changes of Declination.				Differences.			Sums.	Torsion for 90°; in Arc.	Torsion Factor. $1 + \frac{H}{F}$
	In the plane of Detorsion.		East of Meridian.		West of Meridian.		In the plane of Detorsion.											
	A.	B.	A.	B.	A.	B.	A.	B.	a.	b.	c.	a.	b-a.	a-c.	b-c.			
1849 April 23	1610	414	1641	412	1581	413	1608	411	1610	1643	1582	1611	33	29	61	123	2' 3.9	1.000383
27	1638	449	1671	450	1610	451	1643	453	1638	1670	1608	1639	32	31	62	125	2 5.9	1.000389
1851 Aug. 27	1659	450	1677	450	1638	450	1655	447	1659	1677	1638	1658	18	20	39	77	1 17.6	1.000240
1853 May 2	1682	755	1730	751	1636	753	1678	750	1682	1734	1638	1683	52	45	96	193	3 14.4	1.000602

The unit of the readings is one-tenth of a scale division, and is equal to 4.03.

The Torsion Factors actually employed in the reductions appear in the heading of each page, and differ slightly from the above determinations.

DETERMINATIONS OF THE ZERO OF THE DECLINATION MAGNETOMETER SCALE.

Date.	Simultaneous Readings of the Declination Magnetometer A, and of that in the Deflection Room, B.				Readings of the Magnetometer A, corrected for changes of Declination.		Zero.	Date.	Simultaneous Readings of the Declination Magnetometer A, and of that in the Deflection Room, B.				Readings of the Magnetometer A, corrected for changes of Declination.		Zero.
	Direct.		Inverted.		Direct.	Inverted.			Direct.		Inverted.		Direct.	Inverted.	
	A.	B.	A.	B.					A.	B.	A.	B.			
1854 March 13 ...	1658	621	1336	620	1658	1335	1495	1854 Dec. 29 ...	1676	763	1316	758	1676	1311	1494
	1651	621			1651		1498		1670	757			1676		1495
	1653	622	1353	622	1652	1354	1503		1669	763	1323	757	1669	1317	1495
			1337	628		1344	1501								1495
	1656	630			1647		1497		1667	763	1325	763	1667	1325	1497
					Mean.....		1499						Mean.....		1495

The adopted reading for the Zero of the scale was 1497 throughout the five years.

AZIMUTH ERRORS OF THE SMALL TRANSIT INSTRUMENT USED WITH THE DECLINATION MAGNETOMETER.

Date.		Star Observed.	Sidereal Time of crossing centre wire.			Apparent Right Ascension from the Nautical Almanac.			Nautical Almanac — Observed Transit.	Meridian Factor sin(Lat—Dec) 15 cos. Dec.	Azimuth of centre wire, + E. — W.	Initials of Observer.				
			h.	m.	s.	h.	m.	s.	m.	s.						
1851	January 10	51 Cephei	6	28	42.2	6	29	23.5	+	0	41.3	— 1.34	— 0 30.6	R.		
	14	δ Urs. Min. S.P.	6	20	42.7	6	20	7.7	—	0	35.0	+	1.11	— 0 31.6	„	
	„	51 Cephei	6	28	42.7	6	29	23.8	+	0	41.1	—	1.34	— 0 30.6	„	
February	25	δ Urs. Min. S.P.	6	20	8.2	6	20	16.3	+	0	8.1	+	1.11	+	0 7.3	„
	„	51 Cephei	6	29	24.2	6	29	14.0	—	0	10.2	—	1.34	+	0 7.6	„
May	26	α Urs. Maj.	10	54	31.2	10	54	29.5	—	0	1.7	—	0.11	+	0 15.5	M.
June	15	λ Urs. Min.	20	14	13.8	20	13	3.6	—	1	10.2	—	3.26	+	0 21.8	R.
October	25	do	20	12	52.9	20	11	47.9	—	1	5.0	—	3.26	+	0 20.2	„
	27	do	20	12	55.1	20	11	45.4	—	1	9.7	—	3.26	+	0 21.6	„
1852	July 15	ξ Urs. Min.	15	51	0.5	15	49	30.2	—	1	30.3	—	0.30	+	5 1.0	R.
	16	ξ do	15	50	59.5	15	49	30.1	—	1	29.4	—	0.30	+	4 58.0	„
	19	δ do	18	25	50.9	18	20	22.0	—	5	28.9	—	1.08	+	5 4.0	„
October	25	Polaris	1	19	19.5	1	6	31.3	—	12	48.2	—	2.51	+	5 11.6	S.
	27	do	1	19	33.9	1	6	31.0	—	13	2.9	—	2.51	+	5 18.1	M.
	29	do	1	19	30.0	1	6	30.7	—	12	59.3	—	2.51	+	5 16.8	„
November	24	do	1	19	15.9	1	6	21.0	—	12	54.9	—	2.51	+	5 14.4	R.

Date.		Star Observed.	Sidereal Time of crossing centre wire.	Apparent Right Ascension from the Nautical Almanac.	Nautical Almanac — Observed Transit.	Meridian Factor $\sin(\text{Lat} - \text{Dec})$ 15 cos. Dec.	Azimuth of centre wire. + E. — W.	Initials of Observer.
			h. m. s.	h. m. s.	m. s.			
1853	February 7	δ Urs. Min. S.P.	18 13 47.3	18 19 33.4	+ 5 46.1	+ 1.11	+ 5 11.8	V.
	March 2	51 Cephei	6 44 54.9	6 30 12.9	— 14 12.0	— 1.34	+ 10 53.3	M.
	3	δ Urs. Min. S.P.	6 7 24.7	6 19 40.3	+ 12 15.6	+ 1.11	+ 11 2.6	S.
	" 4	51 Cephei	6 44 56.7	6 30 12.6	— 14 44.2	— 1.34	+ 10 54.2	"
	" 4	δ Urs. Min. S.P.	6 7 29.7	6 19 40.6	+ 12 10.9	+ 1.11	+ 10 58.4	M.
	10	δ do do	6 19 43.1	6 19 42.6	— 0 0.5	+ 1.11	— 0 0.4	S.
	" 16	51 Cephei	6 30 2.6	6 30 9.7	+ 0 7.1	— 1.34	— 0 5.3	"
	" 16	δ Urs. Min. S.P.	6 19 46.7	6 19 44.7	— 0 2.0	+ 1.11	— 0 1.8	"
	" 16	51 Cephei	6 29 57.7	6 30 7.3	+ 0 9.6	— 1.34	— 0 7.0	"
April	15	Polaris S.P.	13 5 5.0	13 5 0.1	— 0 4.9	+ 2.53	— 0 2.0	M.
	18	do do	13 5 14.2	13 5 0.7	— 0 13.5	+ 2.53	— 0 5.4	"
July	29	δ Urs. Min.	18 20 8.7	18 20 0.0	— 0 8.7	— 1.08	+ 0 8.1	R.
September	14	δ do	18 19 45.7	18 19 43.3	— 0 3.4	— 1.08	+ 0 3.2	S.
October	25	Polaris	1 7 1.4	1 6 42.2	— 0 19.2	— 2.51	+ 0 7.8	M.
	27	do	1 7 7.3	1 6 41.8	— 0 25.5	— 2.51	+ 0 10.0	"
November	22	do	1 6 59.8	1 6 33.0	— 0 26.8	— 2.51	+ 0 10.8	R.
December	23	do	1 6 22.5	1 6 12.6	— 0 9.9	— 2.51	+ 0 4.0	B.
1854	March 10	δ Urs. Min. S.P.	6 19 18.6	6 19 22.4	+ 0 3.8	+ 1.11	+ 0 3.4	S.
	April 25	Polaris S.P.	13 5 14.3	13 5 13.5	— 0 0.8	+ 2.53	— 0 0.3	M.
	August 22	δ Urs. Min.	18 19 28.2	18 19 31.9	+ 0 3.7	— 1.08	— 0 3.4	V.
	November 6	Polaris	1 6 41.9	1 6 52.0	+ 0 10.1	— 2.51	— 0 4.1	M.
	December 15	do	1 6 27.0	1 6 31.5	+ 0 4.5	— 2.51	— 0 1.8	"
1855	March 6	δ Urs. Min. S.P.	6 18 50.5	6 19 0.1	+ 0 9.6	+ 1.11	+ 0 8.6	"
	7	δ do do	6 18 50.7	6 19 0.4	+ 0 9.7	+ 1.11	+ 0 8.8	"
	8	δ do do	6 18 49.4	6 19 0.7	+ 0 11.3	+ 1.11	+ 0 10.0	"
	April 26	Polaris do	13 5 4.9	13 5 27.2	+ 0 22.3	+ 2.53	+ 0 8.9	"
	September 18	δ Urs. Min.	18 19 35.3	18 19 0.0	— 0 35.3	— 1.08	+ 0 31.8	R.
	November 13	Polaris	1 7 57.7	1 7 4.9	— 0 52.8	— 2.51	+ 0 21.5	V.
	14	do	1 7 58.0	1 7 4.5	— 0 53.5	— 2.51	+ 0 21.7	"
	December 7	do	1 7 26.2	1 6 52.4	— 0 33.8	— 2.51	+ 0 13.7	B.
1856	January 22	51 Cephei	6 32 18.9	6 31 59.9	— 0 19.0	— 1.34	+ 0 14.2	R.
	28	51 do	6 32 27.2	6 31 59.2	— 0 28.0	— 1.34	+ 0 20.9	M.
	October 3	λ Urs. Min.	20 8 52.3	20 7 5.8	— 1 46.5	— 3.26	+ 0 32.2	C.
	19	Polaris	1 8 30.0	1 7 1.0	— 1 29.0	— 2.51	+ 0 34.9	V.
	20	do	1 8 27.2	1 7 0.2	— 1 27.0	— 2.51	+ 0 34.1	"

DETERMINATIONS OF THE DEVIATION OF THE READING TELESCOPE OF THE DECLINATION
MAGNETOMETER FROM THE TRUE NORTH.

[illegible]

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Date.		Angle between the Reading Telescope of the Declination Magnetometer and the centre wire of the Transit.							No. of Repetitions.	Reading Teles- cope—Centre wire of Transit.	Correction for Azimuth of centre wire of the Transit.	Eastern Deviation of the Reading Telescope from true North.	Initials of Observer.
		Readings of the Verniers of the Theodolite.			Mean.	Differences.							
		A.	B.	C.									
1852	October 26	0 0 10 15 35 30	0 0 35 30	0 20 35 40	0 0 10 15 35 33	15 35 23	20	0 46 46.2	- 5 11.6	0 41 36.6	MC.		
	28	7 52 30 15 40 40	52 20 40 30	52 40 41 0	7 52 30 15 40 43	7 48 13	10	46 49.3	- 5 18.1	41 31.2	RR.		
	30	0 19 10 9 42 30	18 50 42 10	19 10 42 30	0 19 3 9 42 23	9 23 20	12	46 56.7	- 5 16.8	41 39.9	MC.		
	November 26	44 28 0 60 0 0	27 40 0 0	28 20 0 30	44 28 0 60 0 10	15 32 10	20	46 36.5	- 5 14.4	41 22.1	RR.		
1853	February 8	243 18 40 259 4 20	18 30 4 10	18 50 3 50	243 18 40 259 4 7	15 45 27	20	47 16.3	- 5 11.8	42 4.5	MC.		
	March 5	0 24 20 9 10 20	24 20 10 0	24 20 10 20	0 24 20 9 10 13	8 45 53	10	52 35.3	-10 57.1	41 38.2	"		
		11	0 0 0 13 41 40	0 0 41 20	0 0 41 30	0 0 0 13 41 30	13 41 30	20	41 4.5	+0 2.8	41 7.3	"	
		17	13 41 40 20 32 30	41 30 32 10	41 40 32 40	13 41 37 20 32 27	6 50 50	10	41 5.0	+0 4.4	41 9.6	"	
	April 19	0 10 10 7 10 20	9 50 9 50	10 10 10 20	0 10 3 7 10 10	7 0 7	10	42 7.6	+0 3.7	42 11.3	"		
		0 23 30 14 27 0	23 10 26 40	23 20 27 20	0 23 20 14 27 0	14 3 40	20						
	July 30	1 31 30 21 51 0	31 10 50 40	31 20 50 40	1 31 17 21 50 47	20 19 30	30	40 39.0	- 0 8.1	40 30.9	"		
	September 15	0 20 20 7 7 30	19 50 7 0	20 20 7 30	0 20 10 7 7 20	6 47 10	10	40 43.0	- 0 3.2	40 39.8	"		
	October 26	7 8 0 13 56 40	7 50 56 20	8 10 56 40	7 8 0 13 56 33	6 48 33	10	40 51.3	- 0 7.8	40 43.5	"		
		28	13 56 40 27 35 30	56 20 35 20	56 40 35 40	13 56 33 27 35 30	13 38 57	20	40 56.8	- 0 10.0	40 56.8	"	
	November 23	27 35 50 34 23 40	35 40 23 30	35 50 23 50	27 35 47 34 23 40	6 47 53	10	40 47.3	- 0 10.8	40 36.5	"		
		December 24	27 4 0 40 58 40	3 30 58 10	4 0 58 50	27 3 50 40 58 33	13 54 43	20	41 44.2	- 0 4.0	41 40.2	"	
	1854	March 13	215 29 50 222 15 30	29 50 15 30	29 50 15 30	215 29 50 222 15 30	6 45 40	10	0 40 34.0	- 0 3.4	0 40 30.6	"	
		April 25	221 36 10 235 18 0	36 0 18 10	36 20 18 20	221 36 10 235 18 10	13 42 0	20	41 6.0	+0 0.3	41 6.3	"	
			26	235 18 0 242 9 30	18 10 9 30	18 20 9 10	235 18 10 242 9 23	6 51 13	10	41 7.3	+0 0.3	41 7.6	"
		August 23	205 21 10 212 12 10	21 10 12 20	21 20 12 10	205 21 13 212 12 13	6 51 0	10	41 6.0	+0 3.4	41 9.4	"	
			September 14	0 0 0 6 53 30	0 10 53 20	0 0 53 30	0 0 3 6 53 27	6 53 24	10	41 20.4	+0 3.4	41 23.8	"
November 6		6 45 50 13 35 30	45 30 35 0	45 40 35 30	6 45 40 13 35 20	6 49 40	10	40 58.0	+0 4.1	41 2.1	"		
December 16		13 28 50 20 16 50	28 20 16 20	28 40 16 50	13 28 37 20 16 40	6 48 3	10	40 48.3	+0 1.8	40 50.1	"		
1855	March 9	15 55 50 29 41 40	55 40 41 30	55 50 41 40	15 55 47 29 41 37	13 45 50	20	41 17.5	- 0 9.1	41 8.4	"		
	April 27	27 8 10 49 19 20	7 50 19 10	8 20 19 20	27 8 7 49 19 17	22 11 10	32	41 36.0	- 0 8.9	41 27.1	"		
		September 19	137 19 30 144 15 40	19 20 15 20	19 40 15 40	137 19 30 144 15 33	6 56 3	10	41 36.3	- 0 31.8	41 4.5	"	
	November 16	305 18 0 319 5 50	17 40 5 30	18 0 5 50	305 17 53 319 5 43	13 47 50	20	41 23.5	- 0 21.6	41 1.9	"		
		December 8	317 36 30 324 29 50	36 20 29 30	36 40 29 50	317 36 30 324 29 43	6 53 13	10	41 19.3	- 0 13.7	41 5.6	"	
	1856	January 22	286 16 30 300 0 0	16 20 - 0 20	16 0 - 0 25	286 16 17 299 59 45	13 43 28	20	41 10.3	- 0 14.2	40 56.1	RR.	
		28	284 54 0 300 11 50	53 50 11 50	53 50 11 40	284 53 53 300 11 47	15 17 54	22	41 43.4	- 0 20.9	41 22.5	"	
October 7			75 46 10 84 6 20	46 50 7 0	46 10 7 30	75 46 27 84 6 57	8 20 30	12	42 16.5	- 0 32.2	41 44.3	"	
		"	77 0 30 84 6 50	1 10 7 30	0 50 6 40	77 0 50 84 7 0	7 6 10	10					
December 20		0 0 0 8 8 10	- 0 20 7 50	0 30 8 30	0 0 3 8 8 10	8 8 7	12	40 39.1					- 0 34.9	40 4.2	"
" 22		360 1 20 183 24 10	1 0 23 50	0 40 24 50	360 1 20 183 24 17	3 22 57	5	40 39.3	- 0 34.1	40 5.2	"		
		339 40 20 360 0 0	40 10 - 0 20	40 40 0 30	339 40 23 360 0 3	20 19 40	30						
Mean Azimuth of the Reading Telescope from 1st October 1852 to 31st December 1855.....											0 41 8.2		

MEAN HOURLY VARIATIONS FROM THE MONTHLY MEANS ARRANGED BY THE MONTHS.

Gottingen Mean Time.	Noon.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean absolute Declination to the East of North.	
Madras Mean Time.	h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41		
January.....	1851	8	-4	4	16	12	4	4	8	12	4	4	-4	-16	-28	-24	-12	61	85	29	-24	-48	-48	-40	-8	0 58 39
	2	16	4	8	16	12	8	8	8	12	0	-8	-16	-28	-40	-64	-72	-20	28	36	36	20	4	-12	0	1 0 28
	3	4	4	8	12	8	8	8	8	4	0	-8	-16	-28	-44	-65	-73	-20	32	44	44	32	16	-8	-12	1 0 44
	4	29	12	25	29	21	17	17	17	12	8	4	-4	-12	-32	-44	-40	4	21	-20	-60	-48	-8	12	29	0 58 55
	5	24	28	32	32	24	16	16	16	8	0	-12	-16	-28	-44	-61	-61	-20	28	32	12	4	4	-8	4	1 0 8
Mean.....	16	9	15	21	15	11	11	11	10	2	-4	-11	-22	-38	-52	-52	1	39	24	2	-8	-6	-11	3	0 59 47	
February.....	1851	38	-7	-15	-15	-11	-11	-7	1	1	1	1	-7	-11	-23	-23	-19	-3	1	-3	-7	5	13	38	54	0 58 34
	2	4	8	4	12	20	12	8	16	20	8	0	-20	-36	-44	-60	-48	-4	20	24	4	12	4	-4	-8	1 0 20
	3	40	12	8	8	16	8	8	8	0	0	0	-12	-20	-28	-41	-37	0	20	4	-24	-24	-12	16	40	1 0 20
	4	0	0	4	8	12	12	12	24	28	20	12	0	-17	-29	-49	-45	-12	20	36	0	-25	-25	-17	-4	0 59 24
	5	8	8	4	8	8	8	4	4	4	0	-5	-13	-21	-29	-37	-29	12	48	40	8	-5	-5	-13	0	0 59 12
Mean.....	18	4	1	4	9	6	5	11	11	6	2	-10	-21	-31	-42	-36	-1	22	20	-4	-7	-5	4	16	0 59 34	
March.....	1851	16	-9	-25	-25	-13	-13	-9	-1	8	12	8	3	-1	-1	20	32	44	48	24	-25	-57	-53	-13	20	0 58 56
	2	-4	-16	-16	-20	-12	-12	-4	-4	0	-4	-12	-20	-24	4	44	80	80	36	-16	-41	-41	-20	-4	0 59 28	
	3	20	0	-8	-12	-4	-4	-8	0	8	4	-4	-8	-20	0	20	44	49	24	-20	-48	-40	0	28	1 1 8	
	4	4	-4	0	-4	8	4	8	12	16	16	12	4	0	-4	8	24	40	40	20	-28	-60	-52	-32	-8	1 0 12
	5	4	0	-4	-4	0	0	4	8	4	12	8	4	0	0	16	36	44	36	0	-37	-57	-53	-21	4	0 59 24
Mean.....	8	-6	-11	-13	-4	-5	-2	3	6	10	6	-1	-6	-10	10	31	50	51	21	-25	-53	-48	-17	8	0 59 50	
April.....	1851	-4	0	-8	-16	-16	-4	13	13	21	29	25	17	9	9	65	81	77	57	-4	-76	-108	-96	-60	-24	0 58 59
	2	8	4	-4	-8	-4	-4	4	8	20	24	24	20	16	32	92	109	80	24	-57	-117	-129	-101	-57	-20	0 59 32
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	4	8	-8	-12	-4	0	8	16	24	33	29	24	20	33	85	105	89	41	-24	-88	-125	-101	-76	-32	1 0 44
	5	12	16	-4	-12	-8	4	4	12	20	28	28	20	12	20	77	101	85	40	-32	-93	-113	-101	-61	-16	1 0 4
Mean.....	5	7	-6	-12	-8	-1	7	12	21	28	26	20	14	24	80	99	83	40	-29	-93	-119	-100	-64	-23	0 59 50	
May.....	1851	3	15	-1	-17	-17	-9	-5	3	11	23	27	19	15	27	95	112	87	19	-46	-90	-102	-86	-54	-21	0 59 29
	2	12	16	-8	-21	-21	-8	0	8	20	24	28	32	32	64	129	129	80	-8	-77	-129	-137	-97	-57	-21	0 59 20
	3	4	12	-9	-17	-13	-4	4	16	32	28	28	28	32	64	125	121	76	0	-73	-125	-146	-109	-65	-33	0 59 16
	4	-16	4	0	-8	-4	12	20	32	44	49	53	57	89	129	129	77	-16	-97	-149	-169	-137	-93	-56	1 2 29	
	5	-4	-8	-16	-20	-24	-12	-4	0	8	12	20	16	40	84	101	76	16	-33	-65	-73	-65	-45	-20	0 59 40	
Mean.....	0	8	-7	-17	-16	-4	3	12	23	27	31	30	30	57	112	118	79	2	-65	-112	-125	-99	-63	-30	1 0 3	
June.....	1851	1	5	-7	-23	-19	-15	-11	1	13	17	21	17	17	53	130	146	106	41	-43	-96	-128	-112	-80	-35	0 58 2
	2	-16	4	-8	-24	-16	-12	-8	-8	8	20	24	36	64	137	157	121	48	-28	-93	-117	-113	-89	-49	0 59 48	
	3	-13	0	-21	-29	-21	-9	4	16	28	40	52	60	88	149	149	96	12	-73	-138	-166	-146	-105	-57	0 57 11	
	4	-37	-12	-16	-24	-12	4	16	24	28	32	40	32	36	52	96	109	80	24	-37	-93	-121	-109	-101	-65	1 1 37
	5	-12	-4	-16	-24	-20	-12	0	4	8	16	24	20	24	49	105	125	93	36	-24	-72	-85	-80	-68	-44	0 58 27
Mean.....	-15	-1	-14	-25	-18	-9	0	7	14	23	31	29	35	61	123	137	99	32	-41	-98	-123	-112	-89	-50	0 59 1	
July.....	1851	-15	-2	-10	-23	-31	-23	-15	-6	2	18	30	30	34	54	139	155	118	54	-19	-95	-123	-123	-91	-51	0 59 14
	2	-12	-4	-16	-24	-20	-12	-8	0	12	24	28	33	41	69	117	125	81	12	-48	-109	-125	-105	-60	-28	1 0 44
	3	-8	-4	-25	-33	-29	-17	0	4	8	20	24	32	44	80	153	153	96	8	-61	-109	-129	-113	-73	-17	0 57 19
	4	-32	-20	-20	-24	-16	-4	8	16	24	37	41	37	37	53	101	109	77	28	-28	-72	-92	-88	-72	-48	1 2 45
	5	-32	-16	-24	-20	-24	-12	-4	12	12	24	28	28	36	53	113	125	97	49	-20	-80	-109	-101	-85	-60	0 58 27
Mean.....	-20	-9	-19	-25	-24	-14	-4	5	12	25	30	32	38	62	125	133	94	30	-35	-93	-116	-106	-76	-41	0 59 42	
August.....	1851	-11	-7	-7	-15	-15	-51	-11	-3	9	17	21	25	29	53	126	142	98	21	-47	-96	-104	-92	-59	-19	1 0 11
	2	28	24	-4	-16	-16	-16	-4	-4	8	12	16	20	24	65	177	177	105	8	-84	-125	-125	-105	-68	-16	1 0 28
	3	21	21	-8	-16	-16	-12	-4	0	12	16	21	25	33	73	154	166	109	8	-88	-149	-157	-121	-92	-24	1 0 52
	4	-4	-8	-24	-28	-20	-12	0	0	8	16	24	28	36	57	121	133	93	24	-40	-89	-105	-85	-68	-40	1 2 29
	5	-9	-9	-13	-13	-5	0	8	16	24	28	36	36	36	60	116	125	76	8	-65	-113	-130	-109	-73	-41	

MEAN HOURLY VARIATIONS FROM THE MONTHLY MEANS ARRANGED BY THE YEARS.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean absolute Declination to the East of North.		
Madras Mean Time	h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41			
1851	January	8	-4	4	16	12	4	4	8	12	4	4	-4	-16	-28	-24	-12	61	85	29	-24	-48	-48	-40	-8	0 58 39	
	February	38	-7	-15	-15	-11	-11	-7	1	1	1	1	-7	-11	-23	-23	-19	-3	1	-3	-7	5	13	38	54	0 58 34	
	March	16	-9	-25	-25	-13	-13	-9	-1	8	12	8	3	-1	-1	20	32	44	48	24	-25	-57	-53	-13	20	58 56	
	April	-4	0	-8	-16	-16	-4	13	21	29	25	17	9	9	65	81	77	57	-4	-76	-108	-96	-60	-24	58 59		
	May	3	15	-1	-17	-17	-9	-5	3	11	23	27	19	15	27	95	112	87	19	-46	-90	-102	-86	-54	-21	59 29	
	June	1	5	-7	-23	-19	-15	-11	1	13	17	21	17	17	53	130	146	106	41	-43	-96	-123	-112	-80	-35	58 2	
	July	-15	-2	-10	-23	-31	-23	-15	-6	2	18	30	30	34	54	139	155	118	54	-19	-95	-123	-123	-91	-51	59 14	
	August	-11	-7	-7	-15	-15	-11	-3	9	17	21	25	29	53	126	142	98	21	-47	-96	-104	-92	-59	-19	1 0 11		
	September	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	October	-40	-36	-19	-11	-15	1	21	65	29	41	49	41	33	17	41	49	33	9	-48	-72	-72	-68	-32	11	1 36	
	November	10	-6	6	6	2	2	6	10	6	10	10	-2	-14	-22	-22	-2	10	-10	-38	-38	-6	22	35	35	0 46	
	December	32	12	24	24	16	8	4	4	4	0	-8	-12	-20	-28	-36	-32	-8	-12	-36	-28	-8	12	20	36	0 36	
Mean.....	3	-3	-5	-9	-10	-10	-1	9	11	16	17	12	7	10	47	59	57	28	-21	-59	-68	-57	-31	0	0	0 59 33	
1852	January	16	4	8	16	12	8	8	8	12	0	-8	-16	-28	-40	-64	-72	-20	28	36	36	20	4	-12	0	1 0 28	
	February	4	8	4	12	20	12	8	16	20	8	0	-20	-36	-44	-60	-48	-4	20	24	4	12	4	-4	-8	0 20	
	March	-4	-16	-16	-20	-12	-12	-4	-4	0	-4	-12	-20	-24	4	44	80	80	36	-16	-41	-41	-20	-4	0	59 28	
	April	8	4	-4	-8	-4	-4	4	8	20	24	24	20	16	32	92	109	80	24	-57	-117	-129	-101	-57	-20	59 32	
	May	12	16	-8	-21	-21	-8	0	8	20	24	28	32	32	64	129	129	80	-8	-77	-129	-137	-97	-57	-21	59 20	
	June	-16	4	-8	-24	-16	-12	-8	-8	8	20	24	36	64	137	157	121	48	-28	-93	-117	-113	-89	-49	59 48		
	July	-12	-4	-16	-24	-20	-12	-8	0	12	24	28	33	41	69	117	125	81	12	-48	-109	-125	-105	-60	-28	1 0 44	
	August	28	24	-4	-16	-16	-16	-4	-4	8	12	16	20	24	65	177	177	105	8	-84	-125	-125	-105	-68	-16	0 28	
	September	28	4	0	-4	-12	-12	-8	-8	-4	16	16	12	28	96	113	64	16	-49	-105	-113	-93	-41	-8	0	59 36	
	October	16	-12	-4	0	-4	0	4	12	8	8	4	-4	-12	-16	12	48	56	24	-36	-65	-44	-20	8	32	58 31	
	November	8	-4	8	8	8	4	8	8	0	-4	-8	-20	-32	-45	-57	-24	20	40	24	8	12	24	16	20	1 0 20	
	December	44	28	28	28	16	12	16	12	12	0	-8	-24	-41	-61	-97	-101	-61	-20	8	20	32	40	44	44	0 24	
Mean.....	11	5	-1	-4	-4	-3	1	4	8	9	9	4	-1	8	41	55	50	23	-21	-58	-63	-50	-28	-3	0	0 59 50	
1853	January	4	4	8	12	8	8	8	8	4	0	-8	-16	-28	-44	-65	-73	-20	32	44	44	32	16	-8	-12	1 0 44	
	February	40	12	8	8	16	8	8	8	0	0	0	-12	-20	-28	-41	-37	0	20	4	-24	-24	-12	16	40	0 20	
	March	20	0	-8	-12	-4	-4	-8	0	8	8	4	-4	-8	-20	0	20	44	49	24	-20	-48	-40	0	28	1 8	
	April	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	May	4	12	-9	-17	-13	-4	4	16	32	28	28	32	64	125	121	76	0	-73	-125	-146	-109	-65	-33	0	59 16	
	June	-13	0	-21	-29	-21	-9	4	16	28	40	52	52	60	88	149	149	96	12	-73	-138	-166	-146	-105	-57	57 11	
	July	-8	4	-25	-33	-29	-17	0	4	8	20	24	32	44	80	153	153	96	8	-61	-109	-129	-113	-73	-17	57 19	
	August	21	21	-8	-16	-16	-12	-4	0	12	16	21	25	33	73	154	166	109	8	-88	-149	-157	-121	-92	-24	1 0 52	
	September	32	8	0	0	0	-4	-4	4	8	8	8	4	16	28	61	149	153	77	-16	-89	-149	-165	-125	-52	12	0 32
	October	8	-16	-12	-4	-8	-4	4	8	8	8	8	-4	-12	-8	20	32	24	8	-24	-48	-40	-24	8	20	0 20	
	November	24	8	12	12	8	4	8	12	12	4	0	-13	-25	-41	-41	-33	-9	-13	-17	-21	-4	20	32	32	1 17	
	December	37	20	20	25	20	12	12	8	8	4	0	-8	-16	-28	-48	-48	-20	-20	-28	-16	0	4	16	29	0 58 47	
Mean.....	18	6	-3	-5	-4	-2	3	8	12	12	12	9	8	18	50	55	43	8	-35	-69	-77	-59	-29	2	0	0 59 48	
1854	January	29	12	25	29	21	17	17	17	12	8	4	-4	-12	-32	-44	-40	4	21	-20	-60	-48	-8	12	29	0 58 55	
	February	0	0	4	8	12	12	12	24	28	20	12	0	-17	-29	-49	-45	-12	20	36	0	-25	-25	-17	-4	59 24	
	March	4	-4	0	-4	8	4	8	12	16	16	12	4	0	-4	8	24	40	40	20	-28	-60	-52	-32	-8	1 0 12	
	April	4	8	-8	-12	-4	0	8	16	24	33	29	24	20	33	85	105	89	41	-24	-88	-125	-101	-76	-32	0 44	
	May	-16	4	0	-8	-4	12	20	32	44	49	53	53	57	89	129	129	77	-16	-97	-149	-169	-137	-93	-56	2 29	
	June	-37	-12	-16	-24	-12	4	16	24	28	32	40	32	36	52	96	109	80	24	-37	-93	-121	-109	-101	-65	1 37	
	July	-32	-20	-20	-24	-16	-4	8	16	24	37	41	37	37	53	101	109	77	23	-28	-72	-92	-88	-72	-48	2 45	
	August	-4	-8	-24	-28	-20	-12	0	8	16	24	28	36	57	121	133	93	24	-40	-89	-105	-85	-68	-40	2 29		
	September	37	12	4	0	-4	-4	8	12	20	24	24	24	49	121	125	65	-16	-88	-149	-153	-109	-40	20	0 40		
	October	28	0	0	4	0	0	8	16	12	12	12	4	0	-4	0	28	36	32	-4	-52	-76	-52	-16	20	0 28	
	November	20	16	12	16	12	4	12	12	12	8	0	-16	-28	-40	-68	-48	-20	0	-4	0	36	53	32	24	0 32	
	December	36	24	16	16	12	12	12	12	12	4	-8	-16	-28	-40	-52	-56	-28	-4	-12	-16	0	12	20	36	0 28	
Mean.....	6	3	-1	-2	0	4	11	16	20	22	20	14	10	16	40	48	41	13	-29	-68	-76	-55	-35	-9	1	0 54	
1855	January	24	28	32	32	24	16	16	16	8	0	-12	-16	-28	-44	-61	-61	-20	28	32	12	4	4	-8	4	1 0 8	
	February	8	8	4	8	8	8	4	4	4	0	-5	-13	-21	-29	-37	-29	12	48	40	8	-5	-5	-13	0	0 59 12	
	March	4	0	-4	-4	8	0	4	8	4	12	8	4	0	16	36	44	36	0	-37	-57	-53	-21	4	0	59 24	
	April	12	16	-4	-12	-8	4	4	12	20	28	28	20	12	20	77	101	85	40	-32	-93	-113	-101	-61	-16	1 0 4	
	May	-4	-8	-16	-20	-24	-12	-4	0	8	12	20	16	16	40	84	101	76	16	-33	-65	-73	-65	-45	-20	0 59 40	
	June	-12	-4	-16	-24	-20	-12	0	8	16	24	24	24	49	105	125	93	36	-24	-72	-85	-80	-68	-44	58 27		
	July	-32	-16	-24	-24	-12	-4	12	12	24	28	28	36	53	113	125	97	49	-20	-80	-109	-101	-85	-60	58 27		
	August	-9	-9	-13	-13	-5	0	8	16	24	28	36	36	60	116	125	76	8	-65	-113	-130	-109	-73	-41	59 12		
	September	32	0	-20	-20	-12	-8	-4	4	12	16	16	20	20	48	133	149	97	12	-81	-145	-157	-117	-48	12	1 0 12	
	October	21	0	0	0	0	8	8	8	17	13	8	0	-4	-8	17	49	49	25	-36	-76	-60	-28	8	29	1 0	
	November																										

MEAN HOURLY VARIATIONS FROM THE MONTHLY MEANS ARRANGED BY THE MONTHS.

Gottingen Mean Time.	Noon.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	ΔX		
Madras Mean Time.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	$1 + \frac{\Delta X}{X}$		
	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	13 41	14 41	15 41	16 41	17 41	18 41	19 41	20 41	21 41	22 41	23 41	0 41	1 41	2 41	3 41			
January.....	1851	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	-000	1.001605	
	2	-116	-198	-248	-306	-331	-372	-389	-422	-479	-405	-323	-298	-273	-265	-289	-124	173	0596	1074	1199	1018	537	215	-050	0777	
	3	-108	-256	-265	-364	-413	-430	-421	-389	-364	-339	-298	-298	-289	-265	-149	050	372	0644	0934	0909	0761	521	248	050	2182	
	4	-165	-273	-323	-348	-323	-356	-364	-356	-348	-323	-289	-265	-248	-182	-108	100	438	0802	1018	0950	0678	306	041	-091	3256	
	5	-124	-206	-256	-314	-331	-348	-389	-372	-256	-239	-215	-157	-108	-058	000	058	223	0389	0562	0694	0686	463	281	033	4314	
Mean.....		-126	-238	-278	-347	-364	-392	-399	-381	-349	-312	-268	-247	-223	-192	-129	030	302	0598	0871	0919	0791	478	218	012	1.002427	
February.....	1851	-165	-133	-273	-397	-414	-464	-496	-513	-431	-431	-372	-364	-364	-406	-281	083	645	1208	1440	1274	0860	339	003	-157	1.001746	
	2	-033	-215	-298	-438	-454	-454	-421	-397	-273	-281	-256	-273	-306	-348	-289	008	348	0719	0975	1157	0909	496	223	083	0331	
	3	-215	-281	-372	-496	-513	-561	-586	-570	-446	-396	-323	-273	-240	-231	-206	050	504	1000	1281	1257	0984	578	198	-091	2298	
	4	-182	-248	-281	-413	-438	-454	-471	-471	-397	-348	-265	-248	-248	-198	-100	074	364	0678	0892	0992	0818	546	240	-033	3231	
	5	-133	-223	-281	-314	-374	-339	-397	-381	-348	-314	-248	-223	-206	-165	-091	058	372	0669	0867	0876	0694	389	100	-050	4298	
Mean.....		-146	-220	-301	-412	-439	-454	-474	-466	-379	-354	-293	-276	-273	-270	-193	055	447	0855	1091	1111	0853	470	154	-050	1.002381	
March.....	1851	-206	-190	-298	-455	-521	-587	-645	-620	-604	-587	-546	-521	-513	-504	-364	033	670	1274	1680	1564	1208	662	173	-108	1.002192	
	2	-165	-223	-314	-405	-421	-438	-446	-389	-306	-331	-339	-314	-323	-314	-323	-231	008	430	0843	1066	1049	0752	421	198	-033	0554
	3	-140	-215	-289	-364	-364	-381	-396	-388	-372	-364	-323	-314	-314	-323	-231	008	430	0843	1066	1049	0752	421	198	-033	2256	
	4	-265	-298	-372	-463	-454	-430	-405	-364	-331	-331	-323	-281	-256	-256	-223	026	496	0967	1190	1157	0876	413	017	-182	3388	
	5	-231	-256	-397	-413	-446	-504	-454	-405	-405	-389	-348	-306	-289	-265	-198	066	521	0975	1257	1190	0884	454	108	-141	4404	
Mean.....		-201	-236	-334	-420	-441	-462	-469	-433	-404	-400	-376	-347	-339	-446	-311	016	547	1053	1316	1242	0934	489	132	-106	1.002559	
April.....	1851	-182	-231	-331	-480	-521	-554	-587	-562	-513	-504	-496	-464	-431	-439	-331	008	637	1299	1580	1415	1034	546	149	-074	1.002358	
	2	-273	-323	-463	-586	-611	-578	-521	-446	-331	-331	-314	-298	-273	-231	-108	182	694	1157	1405	1182	0769	323	058	-074	0447	
	3	-281	-281	-446	-555	-546	-521	-471	-463	-396	-396	-381	-356	-331	-314	-190	157	661	1240	1471	1240	0851	463	083	-157	2578	
	4	-265	-281	-348	-454	-446	-446	-421	-397	-331	-306	-256	-215	-165	-133	-091	124	513	0859	1115	0984	0686	331	116	-182	3182	
	5	-331	-314	-356	-364	-397	-397	-356	-322	-273	-289	-289	-256	-223	-231	-190	066	521	0926	1165	1050	0744	381	-017	-281	4438	
Mean.....		-266	-286	-389	-488	-504	-499	-471	-438	-369	-365	-347	-318	-285	-270	-182	107	605	1096	1347	1174	0817	409	078	-154	1.002601	
May.....	1851	-141	-240	-381	-488	-480	-496	-496	-472	-414	-422	-422	-455	-447	-431	-256	-058	554	1010	1258	1266	0960	571	256	000	1.002375	
	2	-231	-348	-405	-488	-438	-471	-496	-463	-388	-339	-281	-306	-298	-281	-091	223	603	0967	1198	1050	0851	454	066	-116	1041	
	3	-148	-190	-323	-413	-364	-356	-339	-331	-281	-281	-281	-248	-173	-140	-074	100	454	0761	0851	0761	0586	348	116	-058	2479	
	4	-165	-265	-397	-488	-430	-438	-421	-430	-372	-364	-348	-314	-256	-223	-100	121	504	0802	1009	1009	0761	529	206	-017	3447	
	5	-281	-364	-413	-397	-381	-405	-421	-389	-289	-289	-289	-256	-223	-231	-091	149	570	0876	1017	0967	0744	471	173	-133	4595	
Mean.....		-193	-281	-384	-455	-419	-433	-435	-417	-349	-339	-324	-324	-289	-261	-122	107	537	0883	1067	1011	0780	475	163	-065	1.002787	
June.....	1851	-074	-149	-265	-306	-306	-348	-356	-372	-397	-422	-431	-406	-381	-356	-273	-083	215	0612	0927	1043	0927	662	364	074	1.002814	
	2	-281	-372	-372	-372	-331	-348	-339	-314	-306	-281	-256	-265	-256	-240	-133	058	413	0678	0926	0917	0785	570	248	-074	1239	
	3	-190	-298	-331	-381	-389	-364	-323	-314	-323	-298	-248	-223	-198	-198	-050	148	529	0736	0881	0785	0586	396	116	-074	2686	
	4	-256	-298	-339	-356	-331	-348	-331	-298	-281	-298	-215	-198	-173	-182	-083	083	364	0653	0826	0818	0678	421	157	-133	3843	
	5	-256	-289	-289	-273	-256	-273	-248	-256	-239	-231	-190	-198	-206	-206	-100	083	306	0611	0802	0818	0603	364	083	-124	4784	
Mean.....		-211	-281	-319	-338	-323	-336	-319	-311	-309	-299	-268	-258	-243	-236	-128	058	365	0658	0873	0876	0716	483	194	-066	1.003073	
July.....	1851	-298	-339	-348	-397	-381	-389	-372	-372	-381	-381	-331	-331	-323	-281	-173	017	298	0736	1050	1099	0901	644	289	000	1.000818	
	2	-248	-265	-314	-372	-356	-348	-314	-298	-273	-273	-215	-215	-206	-133	017	157	389	0678	0810	0802	0636	372	116	-173	1306	
	3	-149	-240	-298	-381	-405	-397	-364	-306	-256	-289	-256	-265	-265	-231	-100	100	421	0711	0959	0851	0644	446	182	-041	2851	
	4	-265	-356	-356	-356	-298	-323	-289	-265	-248	-256	-206	-206	-198	-182	-091	033	306	0595	0818	0851	0702	529	240	-050	3743	
	5	-173	-239	-248	-256	-231	-231	-206	-198	-165	-223	-239	-239	-239	-223	-149	-025	190	0487	0694	0719	0603	430	182	-066	4768	
Mean.....		-227	-288	-313	-352	-334	-338	-309	-288	-265	-284	-249	-251	-246	-210	-099	056	321	0611	0866	0864	0697	484	202	-066	1.002697	
August.....	1851	-050	-190	-265	-339	-339	-323	-306	-298	-314	-323	-306	-289	-248	-215	-074	248	0562	0761	0834	0785	595	323	108	1.000702		
	2	-215	-265	-314	-381	-372	-364	-348	-289	-231	-231	-240	-223	-215	-190	-083	091	471	0719	0752	0752	0628	430	223	008	1603	
	3	-149	-182	-256	-339	-331	-314	-273	-240	-248	-273	-265	-248	-231	-182	033	397	0719	0818	0744	0603	381	190	000	3182		
	4	-231	-223	-248	-314	-298	-298	-281	-273	-273	-240	-223	-215	-206	-182	-091	050	265	0603	0777	0719	0619	381	124	-091	3966	
	5	-116	-182	-256	-331	-372	-331	-339	-289	-231	-215	-215	-190	-165	-149	-091	025	306	0546	0686	0694	0562	381	223	041	4909	
Mean.....		-152	-208	-268	-341	-342	-333	-321	-286	-255	-250	-255	-240	-225	-200	-132	025	337	0630	0759	0749	0639	434	217	013	1.002872	
September.....	1851	-223	-198	-240	-339	-372	-397	-397	-348	-248	-281	-281	-273	-265	-281	-108	-066	305	0802	1165	1058	0744	331	017	-223	0.999834	
	2	-190	-173	-289	-381	-381	-348	-273	-240	-149	-133	-091	-074	-083	-100	-124	041	364	0694	0876	0802	0529	215	-116	-306	1.001356	
	3	-223	-273	-381	-454	-471	-430	-356	-314	-215	-206	-165	-116	-083	-124	-108	008	471	0810	1025	0867	0562	248	025	-133	2785	
	4	-182	-173	-223	-281	-281	-306	-289	-306	-265	-265	-240	-182	-157	-149	-157	-017	356	0702	0843	0752	0546</					

MEAN HOURLY VARIATIONS FROM THE MONTHLY MEANS ARRANGED BY THE YEARS.

Göttingen Mean Time.		Noon.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	$1 + \frac{\Delta X}{X}$
Madras Mean Time.		h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41	
1851	January	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	00	00	00	00	000	000	000	1.001605
	February	-116	-198	-248	-306	-331	-372	-389	-422	-479	-405	-323	-298	-273	-265	-289	-124	173	0596	1074	1199	1018	537	215	-050	1746
	March	-165	-133	-273	-397	-414	-464	-496	-513	-431	-372	-364	-364	-406	-281	083	645	1208	1440	1274	0860	339	008	-157	-108	2192
	April	-206	-190	-298	-455	-521	-587	-645	-620	-604	-587	-546	-521	-513	-504	-364	033	670	1274	1680	1564	1208	662	173	-074	2358
	May	-182	-231	-331	-480	-521	-554	-587	-562	-513	-504	-496	-464	-431	-439	-331	008	637	1299	1580	1415	1031	546	149	-074	2375
	June	-141	-240	-381	-488	-480	-496	-496	-472	-414	-422	-422	-455	-447	-431	-256	-058	554	1010	1258	1266	0960	571	256	000	2814
	July	-074	-149	-265	-306	-306	-348	-356	-372	-397	-422	-431	-406	-381	-356	-273	-082	215	0612	0927	1043	0927	662	364	074	0818
	August	-298	-339	-348	-397	-381	-389	-372	-372	-381	-381	-331	-331	-323	-281	-173	017	298	0736	1050	1099	0901	644	289	000	0702
	September	-050	-190	-265	-339	-339	-339	-323	-306	-298	-314	-323	-306	-289	-248	-215	-074	248	0562	0761	0834	0785	595	323	108	0.999834
	October	-223	-198	-240	-339	-372	-397	-397	-348	-248	-281	-281	-273	-265	-281	-108	-066	405	0802	1165	1058	0744	331	017	-223	1.000232
	November	-265	-364	-381	-413	-397	-454	-471	-504	-446	-356	-281	-273	-273	-306	-248	149	628	1033	1306	1140	0769	405	083	-124	0777
	December	-149	-231	-372	-446	-479	-430	-463	-438	-348	-323	-273	-256	-248	-231	-173	100	513	0892	1115	1066	0777	372	091	-074	0620
Mean.....		-161	-219	-301	-389	-409	-438	-450	-442	-410	-394	-363	-352	-341	-332	-238	001	445	0890	1189	1155	0884	507	178	-052	1.001339
1852	January	-116	-256	-265	-364	-413	-430	-421	-389	-364	-339	-298	-298	-289	-265	-149	050	372	0644	0934	0909	0761	521	248	050	1.000777
	February	-033	-215	-298	-438	-454	-454	-421	-397	-273	-281	-256	-273	-306	-348	-289	008	348	0719	0975	1157	0909	496	223	083	0331
	March	-165	-223	-314	-405	-421	-438	-446	-389	-306	-331	-339	-314	-323	-884	-537	-050	619	1207	1388	1248	0950	496	165	-066	0554
	April	-273	-323	-463	-586	-611	-578	-521	-446	-331	-331	-314	-298	-273	-231	-108	182	694	1157	1405	1182	0769	323	058	-074	0447
	May	-231	-348	-405	-488	-438	-471	-496	-463	-388	-339	-281	-306	-298	-281	-091	223	603	0967	1198	1050	0851	454	066	-116	1041
	June	-281	-372	-372	-372	-331	-348	-339	-314	-306	-281	-256	-265	-256	-240	-133	058	413	0678	0926	0917	0785	570	248	-074	1239
	July	-248	-265	-314	-372	-356	-348	-314	-298	-273	-273	-215	-215	-206	-133	017	157	389	0678	0810	0802	0636	372	116	-173	1306
	August	-215	-265	-314	-381	-372	-364	-348	-289	-231	-231	-240	-223	-215	-190	-083	091	471	0719	0752	0752	0628	430	223	008	1693
	September	-190	-173	-289	-381	-381	-348	-273	-240	-149	-133	-091	-074	-083	-100	-124	041	364	0694	0876	0802	0529	215	-116	-306	1356
	October	-231	-339	-389	-430	-430	-463	-454	-463	-381	-364	-348	-306	-265	-256	-167	100	586	1000	1248	1207	0859	438	058	-198	1677
	November	-198	-256	-323	-372	-381	-348	-389	-413	-348	-323	-265	-281	-298	-289	-116	190	537	0867	1053	1033	0702	381	033	-165	1752
	December	-157	-240	-314	-331	-323	-372	-356	-331	-306	-248	-215	-206	-190	-141	-017	190	430	0619	0711	0641	0529	350	190	008	1777
Mean.....		-195	-273	-338	-410	-409	-414	-398	-369	-305	-290	-260	-255	-250	-280	-149	103	485	0829	1023	0975	0742	420	126	-085	1.001155
1853	January	-108	-256	-298	-405	-421	-454	-430	-364	-298	-256	-215	-215	-198	-190	-100	066	306	0561	0769	0843	0810	562	306	116	1.002182
	February	-215	-281	-372	-496	-513	-561	-586	-570	-446	-396	-323	-273	-240	-231	-206	050	504	1000	1281	1257	0984	578	198	-091	2298
	March	-140	-215	-289	-364	-364	-381	-396	-388	-372	-364	-323	-314	-314	-323	-231	008	430	0843	1066	1049	0752	421	198	-033	2256
	April	-281	-281	-446	-555	-546	-521	-471	-463	-396	-396	-381	-356	-331	-314	-190	157	661	1240	1471	1240	0851	463	083	-157	2578
	May	-148	-190	-323	-413	-364	-356	-339	-331	-281	-281	-281	-248	-223	-173	-140	100	454	0761	0851	0761	0586	348	116	-058	2479
	June	-190	-298	-331	-381	-389	-364	-323	-314	-323	-298	-248	-223	-198	-198	-050	148	529	0736	0884	0785	0586	396	116	-074	2686
	July	-149	-240	-298	-381	-405	-397	-364	-306	-256	-289	-256	-265	-265	-231	-100	100	421	0711	0959	0851	0644	446	182	-041	2851
	August	-149	-182	-256	-339	-331	-331	-314	-273	-240	-248	-273	-265	-248	-231	-182	033	397	0719	0818	0744	0603	381	190	000	3182
	September	-223	-273	-381	-454	-471	-430	-356	-314	-215	-206	-165	-116	-083	-124	-108	008	471	0810	1025	0867	0562	248	025	-133	2785
	October	-041	-165	-356	-																					

MEAN HOURLY VARIATIONS FROM THE MONTHLY MEANS ARRANGED BY THE MONTHS.

Gottingen Mean Time.	Noon.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Madras Mean Time.	h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41	
January.....	1851	0360	0475	0285	0909	0917	1024	1024	0975	0786	1024	1237	1122	1204	1196	1384	1376	0205	-1851	-3039	-3301	-3703	-2712	-1098	-0311
	2	-0191	0100	0366	0366	0308	0466	0532	0607	0540	0640	0715	0540	0574	0682	0773	0856	0507	-0324	-0765	-0890	-1746	-2087	-1554	-0973
	3	-0419	-0246	0082	0156	0173	0296	0296	0493	0542	0715	0871	0822	0986	0920	0608	0534	0074	-0682	-0978	-1158	-1282	-1142	-1010	-0600
	4	0699	0517	0122	0517	0638	0851	0608	1064	0942	1003	1003	0851	1520	1216	1307	0578	-0882	-2888	-3891	-3800	-2493	-0973	0669	0760
	5	-0312	0000	0338	0364	0623	0623	0805	0779	0883	1039	1065	1013	1584	1480	0857	0519	0000	-0701	-1013	-1443	-1974	-3064	-2337	-1143
Mean.....		0027	0169	0239	0462	0532	0652	0653	0784	0739	0884	0978	0870	1174	1099	0986	0773	-0019	-1289	-1937	-2058	-2240	-1996	-1066	-0453
February.....	1851	1035	0764	0967	0942	0993	1078	1171	1162	1281	1188	1349	1171	1128	1222	0950	-0136	-2189	-4378	-5413	-4319	-2249	0204	2002	2002
	2	-0721	-0352	0598	0606	0705	0844	0975	1016	1163	1065	1229	1131	1172	1114	1319	1450	0721	-0221	-1262	-1491	-3941	-2450	-2786	-1901
	3	0251	0220	0471	0345	0345	0502	0643	0612	0753	0565	0816	0737	0894	0941	0832	0910	0502	-0847	-2150	-2762	-2746	-1679	-0486	0031
	4	-0428	-0153	0275	0122	0306	0275	0214	0153	0367	0122	0765	0398	0551	1010	0888	0643	0275	-0398	-0765	-0765	-0918	-1438	-1408	-0673
	5	-0106	0264	0739	0844	0897	1134	1108	1134	1108	0897	1451	1266	1451	1688	1134	0950	-0185	-1899	-3166	-3350	-3060	-2374	-1345	-0607
Mean.....		0006	0149	0610	0572	0649	0767	0822	0815	0934	0767	1122	0941	1039	1195	1025	0763	-0175	-1549	-2551	-2537	-2583	-1547	-0805	-0230
March.....	1851	0124	0364	0521	0554	0712	0852	1009	1059	1158	1043	1167	1059	1374	1713	1961	1398	-0033	-2317	-3790	-3542	-2896	-1969	-1134	-0323
	2	-0341	0263	0526	0619	0836	0898	0975	1068	1215	1076	1153	0991	1223	1548	1564	0720	-0441	-2268	-3290	-2957	-2268	-1556	-1022	-0619
	3	-0287	-0261	0287	0444	0836	1202	1620	1410	1280	0836	1045	0444	1097	1672	1620	0601	-0575	-2403	-3500	-3657	-2612	-1123	-0340	0052
	4	-0029	0176	0439	0351	0644	0996	1406	1289	1347	0967	1377	0498	1054	1201	1142	1054	0117	-0967	-3134	-3427	-2958	-2197	-1318	-0498
	5	-0104	0052	0131	0653	0783	1071	1149	1279	1227	1018	1514	0836	1436	1410	0914	0366	-0731	-1958	-2976	-3055	-2402	-1436	-0835	-0627
Mean.....		-0127	0119	0381	0524	0762	1004	1232	1221	1245	0988	1251	0766	1237	1509	1440	0828	-0333	-1983	-3338	-3328	-2627	-1656	-0930	-0403
April.....	1851	0380	0619	0619	0798	0910	1111	1238	1387	1372	1223	1216	1231	1320	1633	1522	0753	-0947	-2745	-4073	-4155	-3155	-1939	-0671	0328
	2	0161	0376	0645	1048	1102	1451	1532	1774	1397	1344	1693	1801	2096	2419	2042	0242	-1935	-3977	-5267	-4972	-3521	-1989	-0134	0296
	3	0486	0486	0911	1185	1094	1337	1306	1580	1124	0881	1094	1185	1549	1671	0820	0213	-1367	-2917	-4010	-4041	-2977	-1823	-0152	0516
	4	0519	0935	1142	1116	1168	0961	1090	0961	1064	1064	1454	1558	1869	1843	0753	-0441	-1739	-3011	-4180	-3972	-2700	-1610	-0415	0493
	5	0386	0604	0829	1037	1068	1215	1291	1425	1239	1128	1364	1444	1708	1891	1284	0192	-1497	-3162	-4382	-4285	-3088	-1840	-0343	0408
Mean.....		0386	0604	0829	1037	1068	1215	1291	1425	1239	1128	1364	1444	1708	1891	1284	0192	-1497	-3162	-4382	-4285	-3088	-1840	-0343	0408
May.....	1851	0331	0066	-0066	0381	0588	0927	0968	0911	0977	0844	0720	0687	0853	1407	1838	1631	0099	-1888	-2534	-3502	-2583	-1921	-0836	0331
	2	0413	0400	0526	0700	0778	0874	0840	0844	0923	0970	1031	0957	0983	1327	1183	0504	-0800	-2257	-2745	-2866	-2218	-1618	-0783	0048
	3	0319	0584	0611	1089	0850	1461	1142	0903	1009	1036	1036	0877	1302	1222	0717	0053	-1195	-2364	-3719	-3241	-2736	-1195	-0319	0478
	4	0541	0593	0232	0825	0748	1134	0645	0593	0851	0851	0851	0722	1160	0954	1057	0000	-1418	-2449	-2862	-2681	-1908	-0980	-0258	0670
	5	0796	0576	0823	0604	0988	1097	1207	1289	1234	1125	1015	0658	0933	0988	0219	-0384	-1564	-2469	-2716	-2798	-2386	-1426	-0576	0494
Mean.....		0480	0444	0425	0720	0790	1099	0960	0908	0999	0965	0931	0780	1046	1180	1003	0361	-0976	-2285	-2915	-3018	-2366	-1428	-0554	0404
June.....	1851	-0098	0018	0142	0320	0484	0524	0613	0711	0724	0609	0635	0604	0671	0933	0893	0649	0004	-0893	-1057	-1595	-1968	-1364	-1008	-0511
	2	-0026	-0390	0312	0442	0521	0494	0703	1171	1015	0625	0963	0521	0521	0573	0026	0078	-0599	-1379	-1900	-1822	-1119	-0677	0234	0156
	3	0696																							

MEAN HOURLY VARIATIONS FROM THE MONTHLY MEANS ARRANGED BY THE YEARS.

Gottingen Mean Time.	Noon	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Madras Mean Time	h.m. 4 41	h.m. 5 41	h.m. 6 41	h.m. 7 41	h.m. 8 41	h.m. 9 41	h.m. 10 41	h.m. 11 41	h.m. 12 41	h.m. 13 41	h.m. 14 41	h.m. 15 41	h.m. 16 41	h.m. 17 41	h.m. 18 41	h.m. 19 41	h.m. 20 41	h.m. 21 41	h.m. 22 41	h.m. 23 41	h.m. 0 41	h.m. 1 41	h.m. 2 41	h.m. 3 41	
1851																									
January	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
February	0360	0475	0285	0909	0917	1024	1024	0975	0786	1024	1237	1122	1204	1196	1384	1376	0205	-1851	-3039	-3301	-3703	-2712	-1098	-0311	
March	1035	0764	0967	0942	0993	1078	1171	1162	1281	1188	1349	1171	1128	1222	0950	-0136	-2189	-4378	-5413	-4319	-2249	0204	2002	2002	
April	0124	0364	0521	0554	0712	0852	1009	1059	1158	1043	1167	1059	1374	1713	1961	1398	-0033	-2317	-3790	-3542	-2896	-1969	-1134	-0323	
May	0380	0619	0619	0798	0910	1111	1238	1387	1372	1223	1216	1231	1320	1633	1522	0753	-0947	-2745	-4073	-4155	-3155	-1939	-0671	0328	
June	0331	0066	-0066	0381	0588	0927	0968	0911	0977	0844	0720	0687	0853	1407	1838	1631	0099	-1888	-2534	-3502	-2583	-1921	-0836	0331	
July	0262	0609	0441	0522	0605	0708	0801	0825	0764	0661	0647	0595	0703	0891	0914	0609	-0145	-1036	-1664	-2147	-2161	-1776	-1111	-0586	
August	-0125	0287	0443	0569	0560	0622	0757	0891	0783	0743	0712	0721	0739	0886	0452	-0188	-0851	-1254	-1330	-1307	-1263	-1240	-1030	-0582	
September	0561	0600	0818	0883	0978	1007	1046	1219	1304	1284	1266	1209	1095	1300	0763	-0381	-1535	-2982	-3947	-3546	-2552	-0913	0108	0306	
October	-0154	0250	0703	0898	1003	1103	1220	1207	1370	1461	1534	1425	1416	1797	1520	0485	-1125	-2799	-3997	-3298	-2386	-1828	-1066	-0653	
November	-1874	-1280	-1109	-0620	-0264	0158	0369	0792	0950	1122	1082	1082	1610	2375	2705	2468	0185	-1372	-1768	-2732	-1623	-1201	-0409	-0739	
December	-0063	0251	0179	0188	0304	0376	0626	0779	0644	0725	0770	0805	0984	1253	1047	0653	-0421	-1396	-1817	-1745	-1718	-1396	-0805	-0242	
Mean.....	0076	0273	0346	0548	0664	0815	0930	1019	1035	1029	1073	1010	1130	1425	1369	0788	-0614	-2183	-3034	-3054	-2390	-1517	-0550	-0043	
1852																									
January	-0191	0100	0366	0366	0308	0466	0532	0607	0540	0640	0715	0540	0574	0682	0773	0856	0507	-0324	-0765	-0890	-1746	-2087	-1554	-0973	
February	-0721	-0352	0598	0606	0705	0844	0975	1016	1163	1065	1229	1131	1172	1114	1319	1450	0721	-0221	-1262	-1491	-3941	-2450	-2786	-1901	
March	-0341	0263	0526	0619	0836	0898	0975	1068	1215	1076	1153	0991	1223	1548	1564	0720	-0441	-2268	-3290	-2957	-2268	-1556	-1022	-0619	
April	0413	0400	0526	0700	0778	0874	0840	0844	0923	0970	1031	0957	0983	1327	1183	0504	-0800	-2257	-2745	-2866	-2218	-1618	-0783	0048	
May	-0098	0018	0142	0320	0484	0524	0613	0711	0724	0609	0635	0604	0671	0933	0893	0649	0004	-0893	-1057	-1595	-1968	-1364	-1008	-0511	
June	0291	0013	-0030	0091	0260	0338	0416	0468	0455	0156	-0069	-0061	0113	0247	0000	-0091	-0785	-1037	-1024	-0716	-0152	0030	0629	0421	
July	0310	0153	0418	0513	0486	0499	0562	0688	0616	0548	0504	0513	0557	0652	0292	-0787	-1821	-2356	-1848	-1146	-0499	0229	0369	0544	
August	1022	0840	0958	1135	1317	1539	1785	1844	1803	1762	1835	1735	1685	1848	0722	-1385	-3515	-5036	-5885	-4677	-2379	-0377	0445	1022	
September	-0241	0247	0771	0901	0912	1195	1507	1307	1336	1454	1548	1613	1772	2001	1789	0800	-1107	-2649	-3655	-3125	-3314	-2543	-1583	-0871	
October	-0131	0226	0379	0671	0890	1043	1072	1057	0904	1261	1524	1393	1553	1940	1903	1670	0328	-1181	-2574	-3347	-3544	-3136	-2523	-1371	
November	-0986	-0570	-0733	-0461	-0118	-0027	0226	0344	0190	0235	0281	0226	0335	0896	0995	1041	0570	0299	0226	0308	-0163	-1113	-1303	-0760	
December																									
Mean.....	-0061	0122	0356	0496	0623	0745	0864	0905	0897	0889	0944	0877	0967	1199	1039	0493	-0576	-1629	-2171	-2046	-2017	-1453	-1011	-0452	
1853																									
January	-0419	-0246	0082	0156	0173	0296	0296	0493	0542	0715	0871	0822	0986	0920	0608	0534	0074	-0682	-0978	-1158	-1282	-1142	-1010	-0600	
February	0251	0220	0471	0345	0315	0502	0643	0612	0753	0565	0816	0737	0894	0941	0832	0910	0502	-0847	-2150	-2762	-2746	-1679	-0486	0031	
March	-0287	-0261	0287	0444	0836	1202	1620	1410	1280	0836	1045	0144	1097	1672	1620	0601	-0575	-2403	-3500	-3657	-2612	-1123	-0340	0052	
April	0161	0376	0645	1048	1102	1451	1532	1774	1397	1344	1693	1801	2096	2419	2042	0242	-1935	-3977	-5267	-4972	-3521	-1989	-0134	0296	
May	0319	0584	0611	1089	0850	1461	1142	0903	1009	1036	1036	0877	1302	1222	0717	0053	-1195	-2364	-3719	-3241	-2736	-1195	-0319	0478	
June	-0026	-0390	0312	0442	0521	0494	0703	1171	1015	0625	0963	0521	0521	0573	0026	0078	-0599	-1379	-1900	-1822	-1119	-0677	0234	0156	
July	0451	-0080	-0159	-0133	0106	0133	0265	0315	0398	0371	0477	0557	0636	0504	0053	-0318	-0981	-1484	-1590	-1007	-0424	0451	1007	0769	
August	0907	0207	0078	0570	0363	0259	0467	1114	0492	0467	0440	0259	0207	0492	-0052	-0778	-1737	-2721	-2488	-1114	-0285	0415	1270	1218	
September	0293	0426	0612	0799	0958	1338	1757	2236	2050	1651	1864	1677	1730	1810	0452	-1864	-3221	-4313	-4872	-3834	-2156	-0452	0879	0719	
October	0053	0372	0717	1089	0903	0956	1036	0637	1248	1514	1567	1408	1673	1912	0637	-0877	-1939	-3054	-3028	-2443	-2151	-1116	-0744	-0452	
November	0000	0225	0506	0760	0732	1041	0414	1013	0703	1041	0985	0478	1041	1210	1238	0563	-0814	-2110	-2560	-2589	-2083	-1463	-0563	0169	
December	-0312	-0511	-0227	-0227	0085	0170	0709	1192	0738	0766	0653	0511	0766	1050	0880	1107	0142	-0681	-0965	-0880	-1646	-1562	-1107	-0454	
Mean.....	0116	0077	0328	0532	0581	0777	0915	1075	0969	0911	1034	0841	1079	1227	0754	0021	-1023	-2168	-2751	-2457	-1897	-0961	-0109	0190	
1854																									
January	0699	0517	0122	0517	0638	0851	0608	1064	0942	1003	1003	0851	1520	1216	1307	0578	-0882	-2888	-3891	-3800	-2493	-0973	0669	0760	
February	-0428	-0153	0275	0122	0306	0275	0214	0153	0367	0122	0765	0398	0551	1010	0888	0643	0275	-0398	-0765	-0765	-0918	-1438	-1408	-0673	
March	-0029	0176	0439	0351	0644	0996	1406	1289	1347	0967	1377	0493	1054	1201	1142	1054	0117	-0967	-3134	-3427	-2958	-2197	-1318	-0498	
April	0486	0486	0911	1185	1094	1337	1306	1580	1124	0881	1091	1185	1549	1671	0820	0213	-1367	-2917	-4010	-4041	-2977	-1823	-0152	0516	
May	0541	0593	0232	0825	0748	1134	0645	0593	0851	0851	0851	0722	1160	0954	1057	0000	-1418	-2449	-2862	-2681	-1908	-0980	-0258	0670	
June	0696	0361	0516	0619	0645	0567	0722	1109	0902	0490	0799	0516	0645	0722	0361	0387	-0645	-1521	-2140	-2526	-1779	-1083	-0361	0387	
July	0206	0514	0613	0823	1132	1106	1003	1183	0926	0642	0746	0309	0797	1029	-0028	-0514	-1286	-1646	-1800	-1929	-1517	-1492	-0900	-0180	
August	0252	0378	0780	1234	1082	0906	1032	1661	1007	0956	0881	0654	0554	1158	0302	-0705	-2089	-2718	-2643	-2643	-1319	-0931	-0352	0458	
September	0253	0404	0985	1061	1238	1364	1541	1945	1692	1314	1516	1339	1364	1566	0152	-1718	-3132	-3890	-4042	-2930	-1667	-0581	0328	0379	
October	0329	0835	0860	1113	0810	0734	0759	0405	0987	1341	1569	1366	1594	1594	0683	-0481	-1897	-3365	-3921	-3112	-2125	-0885	0405	0885	
November	0051	0565	0591	0694	0720	0613	0771	0668	0745	0900	0643	0206	0745	0745	0540	0540	0051	-0540	-0745	-0					

Jacob, W. S.

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